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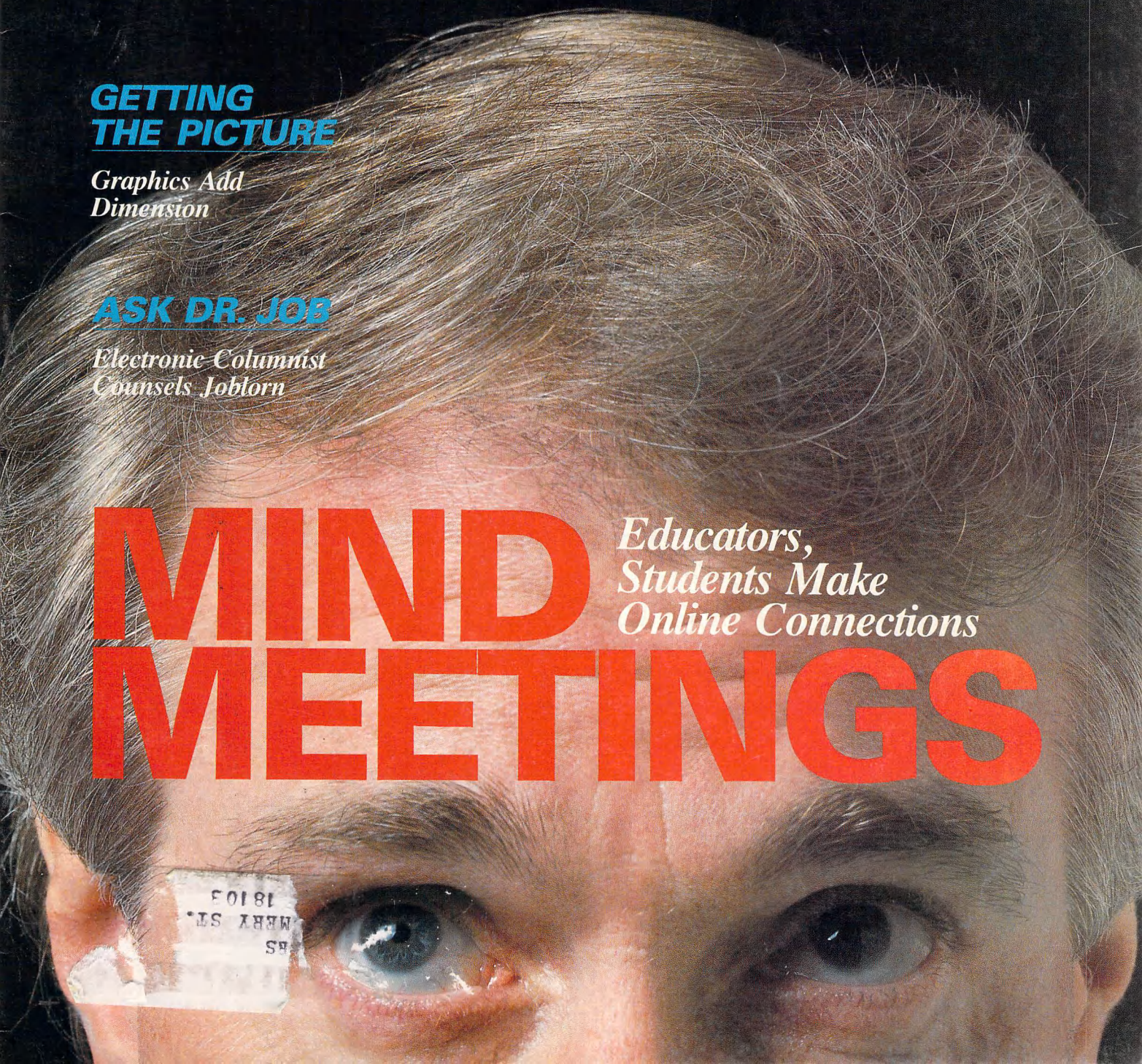
ONLINE TODAY

THE COMPUTER COMMUNICATIONS MAGAZINE

August, 1986 $2.50



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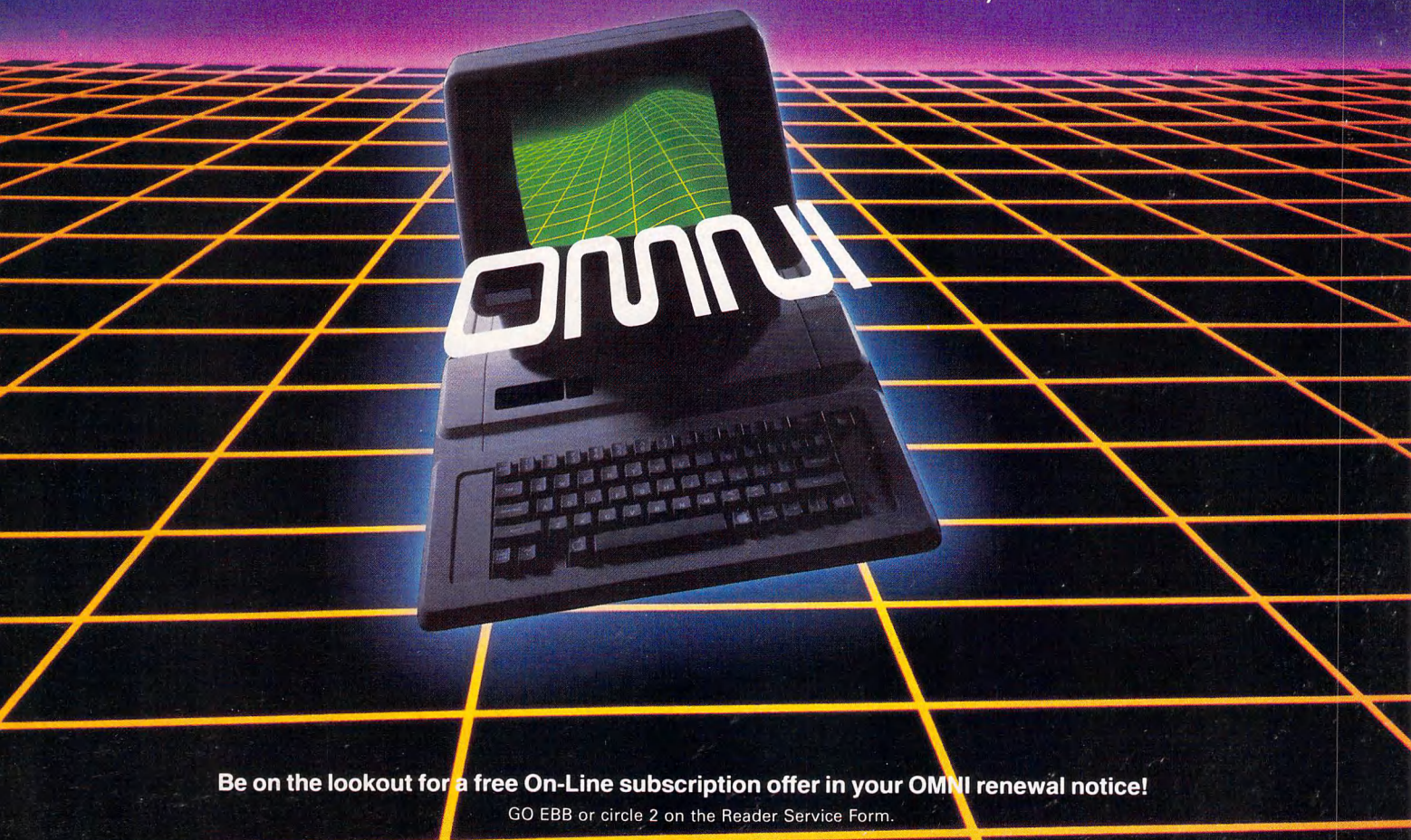

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ELECTRONIC EDITION

Online Today Electronic Edition provides daily-updated computer and information industry news, coverage of CompuServe services, commentary, computer product reviews and more. To access the *Electronic Edition*, type GO OLT at any CompuServe prompt.

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OLT-20	**The current week's Monitor news.**
OLT-130	**Behind the Screens.** *Computer and information industry news, rumor and gossip.*
OLT-50	**CompuServe Update** *main menu. Lists all CompuServe news departments.*
OLT-70	**What's New on CompuServe.**
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OLT-200	**Electronic Edition Reviews** *main menu.*
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OLT-230	**Software Reviews** *main menu.*
OLT-240	**Book Reviews** *main menu.*
OLT-250	**New Product Announcements** *main menu.*
EBB-11	**Instructions** *on use of the Electronic Bounce Back reader service system.*
EBB-160	**Online Today Display ads** *main menu.*
EBB-70	**Shopper's Guide.**
OLT-600	**Resident Memory.**

DEAR READER

***Online Today*™, August 1986**
Volume 5 Number 8

Publisher
Calvin F. Hamrick III
Editorial Director
Richard A. Baker
Editor
Douglas G. Branstetter
Art Director
Thom Misiak
Managing Editor
Mary Mitchell
Contributing Editors
Charles E. Bowen, Cathryn Conroy, John Edwards, Carole Houze Gerber, Ernest E. Mau, Byron T. Scott
Copy Editor
Kacy Cook
Assistant Editors
Richard Brownewell, Robert Loomis
Production Assistants
Chris Moore, Susan Toombs

ADVERTISING SALES
Associate Publisher
Nanette M. Traetow, 5000 Arlington Centre Blvd., Columbus, OH 43220; 614/457-8600
Northeast Garland & Associates, 10 Industrial Park Rd., Hingham, MA 02043; 617/749-5852; Pete Hardy
Mid Atlantic Nelson & Ross Associates Inc., 55 Scenic Dr., Hastings-on-Hudson, NY 10706; 914/478-0491; Bonnie Nelson, Kaja Ross
Southwest Marketing Communications, Woodland Professional Building, 3545 E. 51st, Suite 11, Tulsa, OK 74135; 918/747-1700; Jack Cozier, Carolyn Harrison
South Marketing Communications, 12339 Lima Dr., Houston, TX 77099; 713/495-3288; Max Nelson
Southeast Fox Associates Inc., Suite 200, Building E, 5775 Peachtree Dunwoody Rd. N.E., Atlanta, GA 30342; 404/252-0968; Rick Gower
Midwest Kingwill & Krukowski Inc., 4433 W. Touhy Ave., Chicago, IL 60646; 312/675-5755; Dave Kingwill, Edward Krukowski, Baird Kingwill
Northwest Fox Associates Inc., 870 Market St., San Francisco, CA 94102; 415/989-5804; Stephen E. Schwanz
West The Faust Co., 24050 Madison St., Suite 100, Torrance, CA 90505; 213/373-9604; Richard Faust, Doug Faust, Robin Faust

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When college students in Boston wanted to study reactions to technological change among other students, their teacher arranged an online conference with members of a videotex class at Ohio University, nearly 1,000 miles away. This is but one example of how online learning is erasing the traditional walls of time, geography and culture, thus changing the meaning of "classroom."

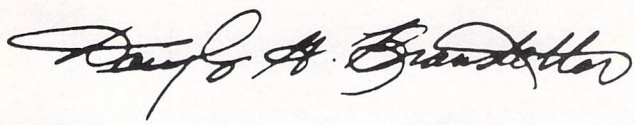
Teachers compare notes on everything from educational research findings to strategies for grading papers more efficiently. Teachers and junior high school science students converge in the Science and Math Forum on Wednesday nights to tackle homework questions. And students have candid discussions with peers on topics ranging from making plans for college to dealing with social pressures.

Find out how videotex is changing the learning process in this month's cover story by Contributing Editor Byron Scott, beginning on page 12. An accompanying article by Matthew Burns details developments in the Students' Forum. To help you embark on an online field trip, check the guide to CompuServe's educational services on page 16.

Another CompuServe Information Service road map is the redesigned Subject Index in the center of this issue. To make services easier to locate, we've streamlined and reorganized the index. For more detailed descriptions of the services, the CompuServe Product Almanac is now available. See page 25 for details.

In exploring online services, you may have noticed that several now have graphic capabilities. If you've wondered how to display graphics or download them to a disk, see the Update feature, "Getting the Picture," on page 26. Through the Picture Support Forum, you can get the specifics for using graphics with your type of computer. For those with a creative flair, the forum is sponsoring a graphic contest with prizes.

Also in Update, read about the wizards, sorcerers and other inhabitants of *The Island of Kesmai*, the latest multiplayer game, and find out who won the Official Airline Guide Essay Contest.



Douglas G. Branstetter
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LETTERS

Surcharge Information

I would like to see the Subject Index in *Online Today* include identification of those services that have surcharges. Time on CompuServe is valuable, and I do not wish to waste it by going through menus and eventually finding that the service has a surcharge.

Bob O'Donnell
Newport News, Va.

Orphan Computers

I strongly disagree with Marc Salzberg's letter (June 1986) about Tandy Corp. and its treatment of orphan computers. Tandy always has been secretive of its computers. There is little second-dealer software, because Tandy never releases the new compiler plans for upcoming computers.

Tandy buried the MC-10 in the back of the 1984 catalog and dropped it (except for software and cables) from the 1985 catalog. The 1986 Tandy catalog does not reference the MC-10 except to sell an interface cable and a book. Nothing in the catalog could be considered as "supportive" for the MC-10.

I believe Salzburg is incorrect in his assessment of the Tandy Corp. Also, I think his joke about the MC-10 ("Has anyone even heard of the MC-10?") is stupid and unfair. Although the MC-10 is an orphan, it is a better computer than the Adam and possibly the Timex-Sinclair. While it is not an Atari 520 or an IBM PC, the MC-10 should receive more respect than it is getting now.

Mark Saylor
North Canton, Ohio

Atari Reviews

I never see information or reviews of Atari products. It seems as if your magazine is almost entirely devoted to IBM users. There are many Atari products on the market and a lot of Atari users are CompuServe subscribers. How about including some articles specifically for Atari users?

Beth Jane Freeman
Wantagh, N.Y.

E-OLT Reviews

The hardware/software reviews on *Online Today Electronic Edition* are quite helpful. Is it possible to scan the reviews with keywords? We Macintosh owners have little or no interest in IBM, Apple II and Commodore reviews. I would probably access OLT more often if I knew I could quickly scan *pertinent* reviews.

Gerry Hoeltge
Cleveland, Oh.

Editor's Note: Currently, there are no search capabilities. However, vital information including machine compatibility, is summarized in an "information block" at the beginning of each review.

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ONLINE TODAY

LETTERS

Farewell COBOL

This letter is in reference to "Farewell COBOL" (July Monitor section). It may be true that 10 years from now COBOL will be a dead language. However, if, as Sally Reins believes, RPG III is the language of the future, I am going to quit programming now — while I still have my sanity.

Larry J. Sellars
Quincy, Fla.

Uploads

I think the new Uploads column in *Online Today Electronic Edition* should be organized by type of computer.

Ron Brostek
Massapequa, N.Y.

Information Retrieval

I have looked for a data retrieval service such as IQuest for a long time. Now that IQuest is available, I cannot find in-depth information on it — not even any advertisements online.

The service must have a wide appeal and I'm sure you have an audience in your readership. What about writing a monthly series on what IQuest has and how to use it?

Tom Watkins
Silver Spring, Md.

*Editor's Note: Please see "The Search is Over" (*Online Today, *May 1986) and "Gateways" (July 1986) for more information about IQuest. Also, we are planning follow-up articles on this topic.*

I enjoyed using IQuest this evening. I am writing a dissertation on Elbert Hubbard, an American writer who was famous throughout the United States around the turn of the century, and was surprised to learn from reading *Online Today* that I could access the MLA (Modern Language Association) Bibliography database on Dialog via IQuest.

It is essential when preparing a dissertation to uncover all references to the subject, no matter how minor they might be. I already have a lengthy bibliography of Hubbard items, but decided to try out IQuest anyway, fully expecting to get only a few citations for items I already knew about.

After typing GO IQUEST and selecting #2 on the menu to pick my own database, I typed MLA Bibliography. It was fascinating to see the accessing procedures take place automatically (network, database vendor, user name, password and database), and within moments I was informed that five citations had been found.

After activating the "save" feature of my telecommunications program, I requested a listing of the five citations. Much to my pleasant surprise, two of the five citations were new to me. In addition to the comfort of getting the information from home, the whole search, from access to IQuest to exit, took only five minutes (at 300 baud).

Bruce A. White
Mt. Rainier, Md.

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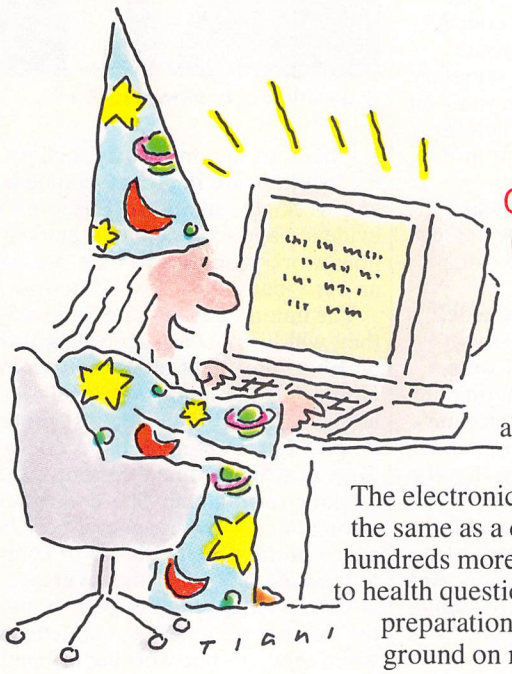

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Senate Bill Targets Telecommuters

On the surface it looks innocent enough, but a bill introduced in the Senate by Sen. Orrin G. Hatch (R-Utah) could lead to a storm of controversy this fall.

The bill (S 665) would amend the Fair Labor Standards Act of 1938 to facilitate industrial homework, including knitting, sewing and craftmaking. In 1942, six garment-related industries were specifically banned from employment in the home because of a legitimate concern over cottage industry sweatshops. This regulation protected many workers.

But according to the Fair Labor Standards Act, the secretary of labor has the power to make regulations concerning any industry. Hatch's bill would eliminate these powers, so the secretary would not be permitted to issue rules on the federal level concerning which industries could offer employment in the home and which could not.

"Everyone knows this means computers," asserts Marc Behr, a New Jersey patent attorney and legal counsel for Women Working Home Inc.

Kris Iverson, a congressional aide who helped draft Hatch's bill, says, "When the original regulations were written in the 1940s, telecommuting did not exist. Even though the prohibition goes to only those six industries, there is no guarantee, given the statutes, that the Department of Labor could prohibit anything it considers to be detrimental."

She insists the Reagan administration would never view homework of any sort as detrimental; however, a future administration may decide all homework should be banned.

"The immediate effect of our bill would be to free homeworkers in these six prohibited industries, but the long-term effect would be to preclude any future regulatory change extending a ban on any industry."

Iverson is quick to point out that it is not Hatch's intention to create 1980s-style sweatshops. "We simply want to allow an individual to work in his or her own home. We consider it a fairness issue," she says.

However, the labor unions are hotly contesting the bill. Jackie Ruff, executive director of District 925 of the Service Employees International Union, has called for a complete ban on all computer homework.

Testifying before a congressional subcommittee last spring, she said, "The solutions to the problems faced by clerical workers are improved compensation and working conditions. Based on the evidence and experience of clerical homework programs to date, we call for an early ban on clerical homework."

A question of homework: *Hatch*

The union position reflects a basic fear they will lose power, according to Marion Behr, president of Women Working Home. "If the unions are really so anti-homework, why are they just protesting it now? There are more than 200 occupations in which women currently are working from home. The unions are resisting homework in general now because of the specific threat of computer homework. They fear they will lose power over a large group of people and will not be able to organize them effectively when they are not working in one location."

Work-at-home proponents agree that some types of employees do need the protection only a union can provide, but believe that those who will be hurt by restrictive work-at-home legislation are the independent contractors and entrepreneurs.

Says Iverson, "There has been no action on this bill because we don't have the votes" on the Committee on Labor and Human Resources. She said support is needed from either Sen. Robert T. Stafford (R-Vt.) or Sen. Lowell P. Weicker (R-Conn.) or another Democrat. "For this reason, the bill has not come up in committee, but we have not given up on it."

— Cathryn Conroy

System Failure

Is "collecting dust" your local school's best computer application?

If so, your area's school is not alone. According to the head of the Carnegie Forum on Education and the Economy, most US schools — kindergarten through high school — have been caught unprepared by the computer revolution. Marc Tucker, the forum's executive director, notes schools were neither the first nor the strongest advocates of computer education, with most institutions dragged into the field by anxious parents.

"When computers were first installed in schools, most schools had no idea what to do with them," he says. Schools reacted, Tucker notes, by launching computer programming classes. But "people have more of a need to know how to use computers than to program them," he says.

Tucker is more positive about the use of computers in colleges and universities. Sophisticated computer networks enable students to gain access to libraries, databases and other computers on and off campus, he said.

Tucker has published his findings in the University of Pennsylvania's *Journal of Communication*.

— John Edwards

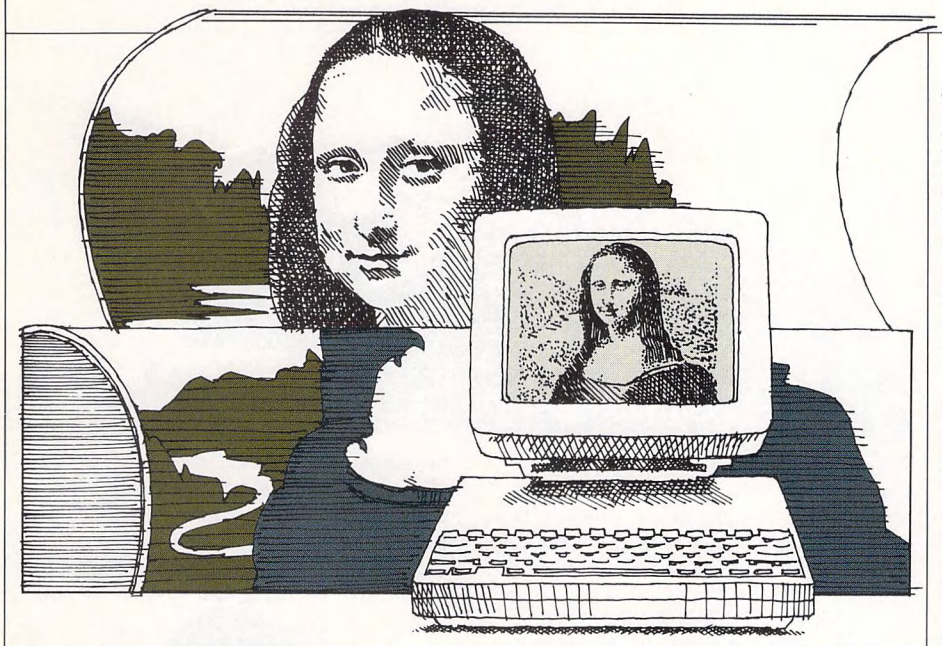
Be True to Your School

William R. Hewlett has brought new meaning to the word "school booster" by donating a cool $50 million to California's Stanford University. The gift is the largest donation the school has ever received from one person.

Hewlett, 72, co-founder of Hewlett-Packard Co. and a 1934 Stanford graduate, said he made the gift in appreciation for the help the school gave him as a young man and for all the H-P workers trained by Stanford over the years.

"Stanford has been important to me and my family, to my company, to this community and to the nation. I want to see it strengthened for the future so that it will continue to benefit society through educating promising young people and performing research essential to the progress of mankind," he said.

Hewlett, as it turns out, will barely miss the $50 million — he owns nearly $900 million in Hewlett-Packard stock and controls a family trust worth another $380 million.



Post No Errors

How many times have you watched a billboard being painted? Seeing the artists work on such a large scale can be a fascinating experience. However, this simple pleasure is rapidly becoming just another fond memory, because computers now are being used to paint billboards.

MegaPrinter, designed by Computer Image Systems Inc., uses a Hewlett-Packard microcomputer to digitize original artwork, which can be as small as a postcard. When the image is stored in the computer, the system starts painting the billboard on either paper or cardboard attached to a drum measuring 25 feet in diameter and 54 feet long. As the drum slowly revolves, four ink guns move across a track parallel to the drum and spray an image onto the paper. When the billboard is finished, the paper or cardboard is cut into sections so it can be moved easily to a billboard site and installed.

According to Marvin C. Schmidt, Computer Image's general manager, MegaPrinter can paint a billboard for about $1,300. Schmidt notes that this is several hundred dollars cheaper than a hand-painted billboard. In addition, MegaPrinter is faster than hand-painting. A billboard that would take about 68 hours to paint by hand takes the computerized system only three hours to paint. However, when the artwork is very simple, such as in the case of block-lettering, it is still cheaper and faster to hand-paint the billboards.

Although MegaPrinter does the job cheaper and faster, Glen D. Johnson, vice president-creative director of the Metromedia Co. outdoor advertising division, Foster and Kleiser, believes human painters still have a slight edge over the computerized method. "Every painter does a billboard slightly different and techniques vary greatly. That can be a big advantage over the MegaPrinter process, because when changes are needed in the artwork, a human painter can quickly correct the problem. But in time, I think computers will be able to do that, too."

Steve Arthur, art director at Hill and Baxter, another advertising agency, agrees. According to Arthur, "We're lucky Michelangelo didn't have to compete against computers. If he did, maybe the Sistine Chapel's ceiling would have been papered instead of painted."

— James Edwards

The Demographics of Telecommuters

Mothers, the disabled, the elderly and rural residents frequently have difficulty finding jobs, so this disparate group has turned to telecommuting.

There are approximately 181,000 individuals in the home-based clerical workforce in the United States, according to Dr. Kathleen Christensen, director of the Project on Women and Home-based Work, located at the City University of New York.

Testifying before a congressional subcommittee exploring the advantages and disadvantages of home-based clerical work, Christensen said the typical home-based clerical worker is a self-employed, married woman. Citing a survey she conducted with the cooperation of *Family Circle* magazine, Christensen painted this picture of the clerical telecommuter: "She works an average of 17 hours a week at home, is paid by piece or hourly rates and is covered by her husband's health insurance. Only one out of every four of the women have preschool-age children."

Although telecommuting is defined as working from home using a computer or terminal and modem linked through telephone lines to an office, Christensen discovered that 75 percent of clerical telecommuters do not use computer technology to do their work.

"These figures cause us to question the role of technology in home employment. We have found that technology does not drive the decision to work at home. Our research shows that values related to family, work and money drive the initial decision to work at home. What is critical to understanding the realities of homework is not computer technology but employment status," she said.

And that employment status — be it independent contractor or clerical entrepreneur — is crucial to the dollars earned.

Although they are typically hired as clerical independent contractors, individuals usually are treated as employees, receiving work from just one company, working on equipment provided by the company and working under supervision. Christensen says such workers earn an average of $7.13 an hour.

Contrast that with the clerical entrepreneur who provides the same services as the contractors but for several companies at pay rates she sets. Average hourly pay for the entrepreneur, Christensen said, is $17.86 an hour.

"Workers expected to perform as employees should be defined as employees with full benefits. Benefits must be provided according to wage earnings," she urged, adding she would like to see legislation enacted to ensure this.

Christensen supports the concept of telecommuting but insisted, "We must build in safeguards for this vulnerable labor pool of women who want to be or have to be at home."

— Cathryn Conroy

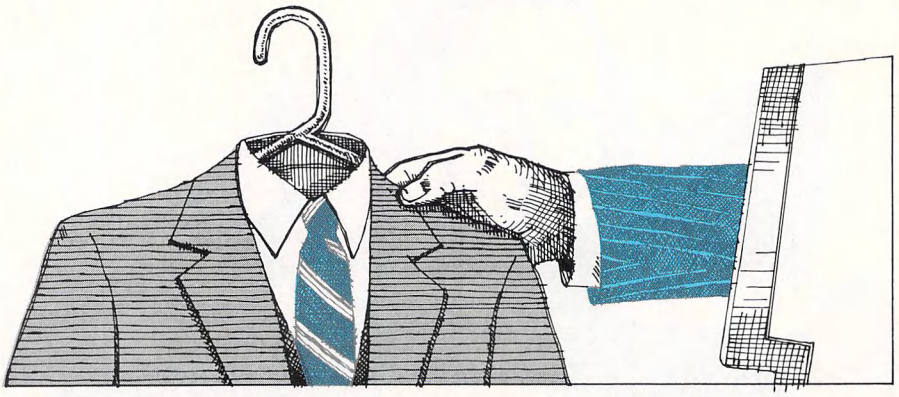
Online off the Rack

Custom Vetement Associates, the US subsidiary of a French clothing manufacturer, is using computer terminals to deliver custom-tailored suits, sport coats and slacks in a fraction of the time required by traditional methods.

Under the system, customers visit a local clothing store to select their new outfits. The buyers are measured from head to toe, with vital statistics entered into a remote terminal and electronically transmitted to CVA's New York headquarters.

From New York, the data is sent by satellite to the company's Strasbourg, France, manufacturing facility. There, a computer selects the proper fabric and programs a laser cutter that cuts the pattern for each suit in just four and a half minutes. Special production lines finish the garment in normal fashion in the same day, and the complete outfit is sent to the US clothing store for delivery shortly thereafter.

Morris Weil, vice president and general manger for Reamer's, a



Baltimore/Washington-area specialty chain, is a strong advocate of the system. "We'll now be able to satisfy any man, not just those who could wear suits off the rack. And these clothes will practically eliminate one of our heavy overhead expenses — alterations."

Victor Sabbagh, CVA's president, says the high-tech tailoring system has worked almost flawlessly so far. He thinks the set-up will appeal to stores with limited floor space and sophisticated customers. "It enables a store to broaden its customer base without adding to its inventory," he said. The company's custom-made suits sell for $325 to $495.

Sabbagh predicts that more than 100 stores will be using the system by this fall.

Polly Want a PC?

We have a friend who refers to all personal computer sales representatives as "penguins in three-piece suits." He's wrong, of course. We know of one computer store that uses birds of a different feather to sell its wares.

The store is Mid-South Micros in Jackson, Miss. The birds are named Sam and Clyde. They're parrots.

"We use the parrots as a marketing tool," says owner Robert "Sonny" Dyess. "We use them in advertisements. It's a way for people to remember our name." Dyess is teaching the birds to say "IBM."

Currently, Sam and Clyde occupy a prominent position in the store's second-floor office window. Sometime in the future, Dyess hopes to bring the birds onto the selling floor. He notes that Sam sings and cuts a mean dance step. Clyde is slightly more mellow, preferring to squawk an occasional "hello." Like most computer professionals, both birds work for peanuts (mixed with bird seed).

Dyess sees his parrots as a long-term marketing venture. "They can live for up to 80 years," he notes.

Which means the birds will certainly outlive many current PC products.

— John Edwards

Jobs Online

The Show Me State has something to show off — an online computer job bank.

Operated by Missouri's employment bureau, the system located more than 200,000 jobs for workers in the last two years, an average of nearly 400 jobs per business day.

"The Missouri computer system spans three states and links every employment office within our network electronically. No other state can say that," boasts Bruce Cornett, director of the Missouri Division of Employment Security.

Terminals are located in 48 employment offices in Missouri as well as six in Illinois and six in Kansas. The 5-year-old program operates without the bane of all government bureaucracies: paper. "This has reduced costs, improved productivity and minimized the problems associated with working with, sending and storing paper," Cornett says.

Records are entered, edited and stored electronically at the state capitol. Any office can access information to help businesses find employers or individuals find jobs.

Businesses can specifically define the types of workers they need, the number of people required and the skills necessary to do the job. With information on more than 25 percent of the total

Calling up jobs: *Cornett*

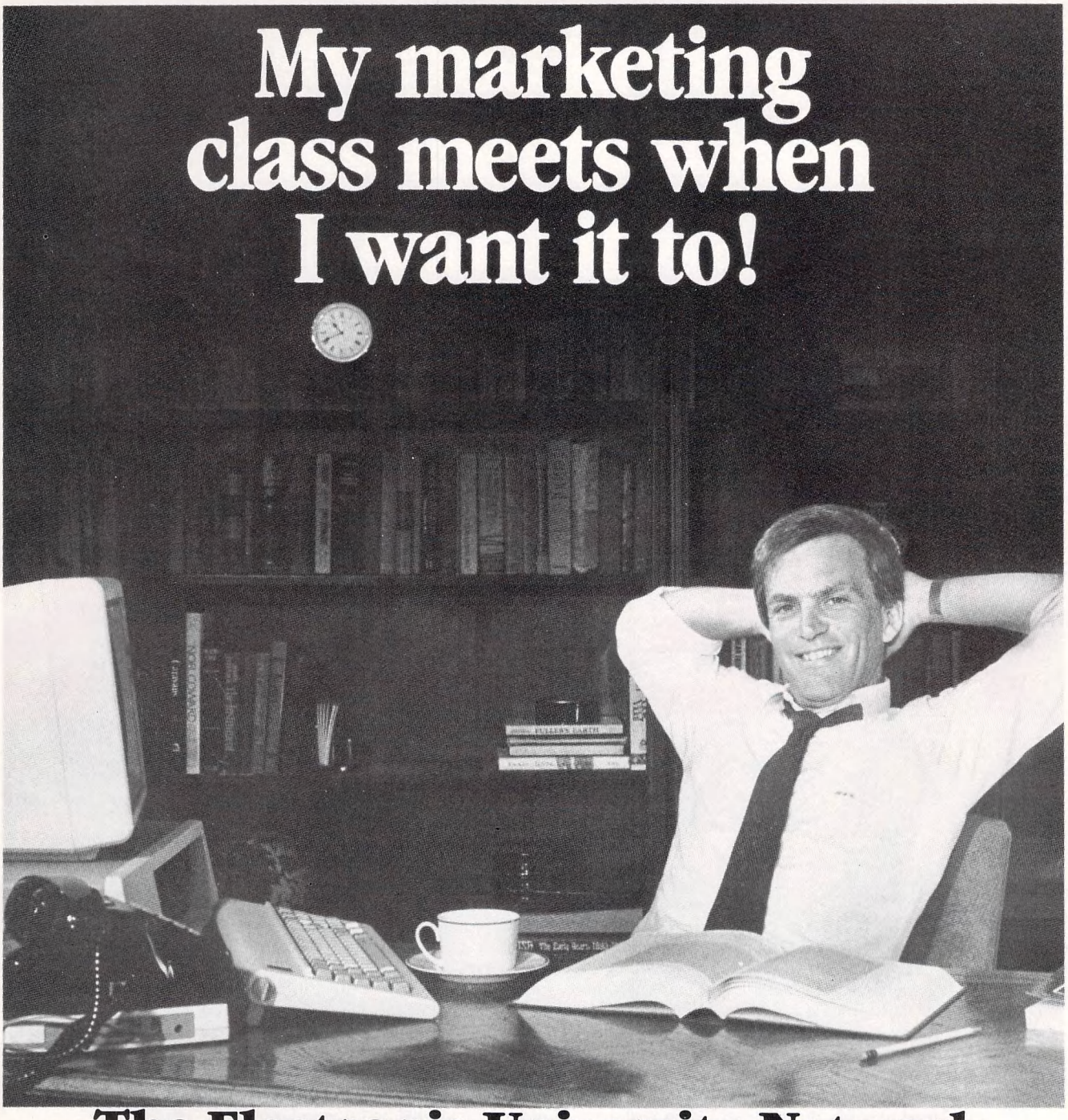
Missouri labor force compiled in the state's database, employers have a large resource readily available for quick searching.

General Motors, Chrysler, Ford and AT&T all have used the online system with great success, says Cornett. "But it works just as well with the small companies, like Myrtle's Boutique and Joe's Bar and Grill."

With the system firmly in place, Cornett is looking to the future. "Someday we'll furnish job applicants with credit cards containing a magnetic strip. They will be able to come into a local office and, without having to talk to an interviewer, simply insert the card into a machine and receive a printout of jobs for which they are qualified," he says.

— Cathryn Conroy

My marketing class meets when I want it to!



The Electronic University Network

For some time I've known I needed a course that would fine tune my strategic marketing skills, but with a demanding job, a family, it's not easy to do. Then I was told I missed a promotion because I needed an MBA. Still, going back to school at my age seemed nearly impossible. With my work schedule, the kids, there just isn't enough time to go to campus.

Now I go to class when it's convenient for me.

By connecting my home computer to the Electronic University Network, I can choose from 150 courses from colleges and universities all across the country, and even earn an undergraduate degree, or an MBA. **I make college fit my schedule.**

The network has put personalized instruction at my fingertips by bringing the university to me, in my home or office, at my own pace, anytime. And I'm able to work one-on-one with expert instructors from excellent schools. In effect, I have my own marketing mentor.

What's more, since the credit I have earned comes from fully-accredited colleges and universities, my company is covering 100% of the costs through its Tuition Reimbursement program.

Studying via the network is typically less expensive than equivalent on-campus courses—and no computer knowledge is needed to participate.

For details on course costs, participating schools, full degree programs, and an Electronic University Network 1986-1987 Catalog, call toll free:

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MIND MEETINGS

Teachers, Students Make Online Connections In Educational Forums

By Byron T. Scott

When the Soviet nuclear reactor at Chernobyl spewed radiation and doubt into the atmosphere this spring, a Pennsylvania science educator acted. He uploaded a file of facts and assumptions — most of the latter correct — into a data library in CompuServe's Science and Math Forum for online colleagues to use.

When students at Babson College outside Boston wanted to study reactions to technological change among other students, their teacher arranged an online conference with members of a videotex class at Ohio University, nearly 1,000 miles away.

When a San Francisco State University professor needed the latest information on an Oregon trial, not covered in Bay Area newspapers, for a media law class, he got a nightly update from members of the Journalism Forum on CompuServe.

Educators nationwide are beginning to use videotex to educate others, and themselves. The data library contribution on the Chernobyl reactor incident, by Carl C. Fields, an assistant professor at Penn State University's Beaver Campus, is one example of how teachers at all levels are helping each other online.

Although he stressed he had no "special knowledge" of the Soviet situation, Fields was able to explain how nuclear reactions work, how Soviet and US plants differ, and what probably went wrong — long before official explanations emerged and just in time to answer students' questions and fears.

The Science and Math Forum, in common with several other educational and professional forums on CompuServe, is a popular meeting place for educators and students, says Rick Needham, forum administrator. "We try to have two or three teachers on 'live conference' each Wednesday night . . . to explain and help with homework. On Thursday nights just teachers get together for a general online conference." Needham, who is on the faculty at Mercersburg (Pa.) Academy, also has been quizmaster for an electronic "College Bowl." Students from two high schools attempt to answer questions taken from The College Board's Scholastic Aptitude Test (SAT) and other stumpers. Participation takes a quick mind, and a fast finger on the Return key.

For educators, videotex becomes an electronic connection to both knowledge and colleagues. Often a teacher working in a small school or in an isolated field may feel abandoned or cut off. Online communication, while still a strain on school and individual budgets, is still more immediate and cost-efficient than finding the time to attend out-of-town meetings. "I've had the devil of a time convincing our school administration to share the cost of my 'videotex habit,' " comments one (understandably anonymous) Oregon educator, "but it's making me a better teacher and keeping me sane."

Database retrieval is the most familiar application of computerized communication in education. Even though online conferences and messaging are the core of the various educational forums, informational databases remain an important function. Students of Dave Winslow, who teaches at the Columbus (Ohio) Academy, used the Academic American Encyclopedia to research Ohio history and other topics. The Students' Forum, with Winslow as forum administrator, has built several popular data library collections. Elementary

school students nationwide have uploaded their poetry into one section; in another, prize-winning essays about Halley's Comet are housed. "Not many schools have been able to justify the expense of modems, phone lines and connect charges to date," comments Winslow, "but I think this will grow." One reason is the power of the computer to break down barriers of time, culture and personality.

Using the Students' Forum, a group of seventh graders conducts regular conferences with a fifth grade class; their two worlds, New Jersey and Ohio, are becoming comprehensible, each to the other. "The conferences are primarily social in nature," explains Winslow, "but there's real learning going on there." One younger student, searching for a science fair project, received experienced advice from older students a third of a continent away. Winslow also conducts online "field trips" to bring other lessons alive. After studying Africa, a Columbus seventh grade class had a conference with a former Peace Corps worker who described life in a typical African village. The former volunteer, Linda Knapp, "spoke" from her computer terminal in California.

Ultimately, it may be conferencing that proves to be the most valuable videotex usage among educators. A function not ordinarily available in standard database retrieval services, on CompuServe the online conference brings a "guest speaker" into the classroom or office in an interactive mode — more cheaply than an airline fare or often even a long distance phone conference. The resulting conversation at 300 or 1200

Forum Spans Cultures

Today's assignment: Without using books or notes, describe the lifestyle of an East African teen-ager. Sound difficult? Not when your class has the opportunity to speak to someone who was a Peace Corps volunteer in the East African country of Malawi, as Dave Winslow's did in a Students' Forum conference last April.

Winslow, a teacher at the Columbus (Ohio) Academy and forum administrator of the Students' Forum, says the class gained a special understanding of how their East African peers live by participating in the conference. Among other discoveries, the class "was particularly surprised to learn of the East African diet and of the early age at which they begin to work," says Winslow.

"The East African conference was a fun, different kind of safari for me," says Linda Knapp, the former Peace Corps volunteer who fielded the students' questions online I was impressed that the students already had written their thoughts down so during the conference we could readily compare their ideas to my real-life experience. They were involved in the adventure and their questions were excellent."

The conference is one of many "field trips" students can go on through the Students' Forum. Students use the forum to exchange information and ideas on several interests including computers, colleges, books, hobbies, and personal and academic problems. While students from middle and high school are the largest group in the forum, students from the second grade to graduate school, teachers and others interested in education participate.

Students accustomed to treks to the library for help with their studies may be surprised to find support and assistance for their endeavors from fellow forum members. If a student is interested in reading, for example, he or she can browse through book critiques written by other students. Forum members also can share their creative abilities by writing compositions or poetry and "publishing" their work online in one of the forum's data libraries. "This area has been particularly successful," says Winslow, "because it allows students to receive feedback on their writing from their peers."

The Students' Forum, online since last September, has grown steadily. Although the lack of funding for computer equipment at the secondary school level prevents many interested schools from participation in the forum's events, Winslow anticipates that the forum will continue to grow as computers become more available and as educators become more familiar with the concept of online education.

"The goal of the Students' Forum is to provide an opportunity for teachers and their classes to work together, regardless of location," says Winslow. His class at the Columbus Academy has conferenced simultaneously with classes at schools in New Jersey and Pennsylvania. Winslow would like to see this project and others expanded during the next school year. "We're looking for teachers and classes all over the country to join with in doing projects this fall," says Winslow.

One of the projects on the drawing board is the creation and maintenance of an online school newspaper whereby students from classrooms across the country could supply news from their schools. "A school newspaper created by two or three fifth grade classes from different states could add another dimension to learning," explains Winslow.

Through forum conferences, students also could bolster their education in American history and geography. "Why not use 'student experts' to enhance the study of these subjects?" asks Winslow. "For example, students at my school are likely to know more about Ohio than their peers in Texas and vice versa. Why not have the students exchange information for the benefit of both classes?"

Barbara Hoffman, CompuServe product manager, agrees. Says Hoffman, "I would like to see the subjects of history and geography presented in the Educational Services area. CompuServe offers the capability to establish links between people on a national, even international, basis. Exchanging information on history and geography via CompuServe can make the study of these subjects come alive for the students."

The forum also will offer a special section this fall to students and professors enrolled in an online course at the Northern Illinois University at DeKalb. The walk to class for many of the 30 to 40 students taking the credit course for an MBA program may be only as far as their living rooms. Through the Students' Forum, the class will be able to supplement their online lectures by exchanging information and ideas with one another in forum conferences and messages.

And for students en route to college, the College Search Data Library can help them to find a school meeting their requirements. Students now can read information that faculty at the Columbus Academy have gathered on schools nationwide. Winslow hopes to soon offer prospective college students information from students on campus that, he says, "will help students get a better 'feel' for the school than they get by just reading material from the school's admissions office."

— Matthew Burns

baud goes a bit slowly at first. Fingers stumble at the keyboard and ideas trip over one-another online — you can't all talk at once — but the experience invariably is both exciting and fully retrievable. Sometimes unexpected benefits even emerge.

An online conference, with line-after-line of conversation marching across the screen, is difficult to describe. Light, humorous remarks frequently mix with more profound statements. Incomplete sentences and online conference jargon often give a telegraphic feel to the communications. Here are a few edited samples from recent electronic conferences among educators:

Scene one — *The editor of* Journalism Quarterly, *the best-known scholarly journal in mass communication, is the guest of an experimental forum project being developed for the Association for Education in Journalism and Mass Communication. Professor Guido Stempel finds himself being questioned by educators from North Carolina (Bill Oates) and California (Michael Fitzgerald) and the co-forum administrator (Don Wallbaum, a graduate student at Stempel's home institution, Ohio University). As they used to say on the old-time radio shows, "Let's listen in."*

Oates: Is this [videotex] the future of journalism?

Wallbaum: That's what my thesis is going to say.

Stempel: Only when modems work.

Fitzgerald: At least it doesn't rub off on your hands.

(We skip to a more serious segment of the conversation)

Fitzgerald: Would you say technology issues are the hottest research topics?

Stempel: Not the hottest, but on the increase. Ethics might be the hottest topic right now.

Fitzgerald: What's now being done?

Stempel: I see studies dealing with impact or use of some technology like videotex, but they are done with some intact group of users and thus have some limited use for generalizations.

Fitzgerald: Will the customer (reader, viewer) be better served?

Stempel: That's one question. How will that person's use of a given medium change as he or she gets more experience with something like videotex? In other words, will people begin to seek things from videotex that they used to seek from television or newspapers or magazines or whatever?

Oates: Or something those media do not or cannot provide? What would you think of an online journal?

Stempel: I'd like to see AEJMC go online with an existing publication and leave it in printed form, too, for a while. *(The conversation goes on, into the night.)*

The ability of videotex to supplement other teaching media — including the kind that "comes off on your hands" — is being explored in several educational forums. For example, the Educational Research Forum schedules conferences with distinguished researchers to discuss their most controversial or valued works. The situation is much like a professional meeting where members of the audience quiz a guest speaker — except that the audience is dispersed in homes and offices nationwide.

Scene two — *The Educational Research Forum's guest is Professor Lauren Resnick, past president of the American Educational Research Association, who is discussing her work and writings on problem-solving at the elementary and secondary school levels. Others in the conversation include a high school English teacher Jane Offutt and Jean Pierce, forum administrator.*

Offutt: I have just switched from teaching elementary students to teaching high school English literature and am trying to synthesize the two fields and the topic of Lauren's paper.

Resnick: What you're saying about the difficulties of "novices" — even those with lots of relevant experience in a nearby field — fits perfectly with what we know. It's hard to get the basic steps down. And until you do there is virtually no capacity available for anything else, at least not online. The novice's time for reflection seems to be only before or after actual engagement with the actual task. Like now, for example.

We pick up the conversation later, at another point.

Pierce: That leads me to my next question. Background knowledge seems to be a necessary prerequisite. Yet, you do suggest teaching the skills in early childhood. How young have students been in successful training studies? And do you really think that younger children can be trained in the skills?

Resnick: (After reviewing published evidence) I think the answer to whether young children can begin to learn to think is a clear yes. And this doesn't conflict at all with the fact that you need knowledge to solve problems. Young children have knowledge — just not everything older people do. Within limits not yet seriously explored, they can learn to do things like figuring out what somebody "really meant" by what she said, thinking about other peoples' points of view, asking relevant questions, reflecting on how much they know and what they still have to learn.

Children have been a part of our world far longer than videotex. That seemingly silly statement illustrates a key point about the use of electronic media in education. In the past, "electronic miracle workers" have stumbled in the classroom — radio did not replace live teachers as predicted by some in the 1930s, and televised lectures did not replace them in the 1950s. But electronic media have found their roles. From slide projectors to videotapes to microcomputers, with and without modems, the classroom is increasingly a "plugged-in" world. So is the teacher's office at school and den at home. But finding the right role for videotex will take some time and experimentation, as well as some stumbling around.

The trek to understanding is underway. Not only in the CompuServe forums, but in the classrooms. Examples are not difficult to find. At James Madison University in Virginia's Shenandoah Valley, students in a Business Spanish class use spreadsheets, database management and word processing software with commands translated into Spanish. "One of the big advantages," explains Professor Howard Cohen, "is the psychological advantage of feeling like a part of the computer age, but in their new language." Cohen also uses interactive video to teach voice control and responses in Spanish.

Today, teachers are mostly talking to other teachers through videotex. They send helpful, informational, encouraging messages to each other on a variety of topics: the length of the school year, children's behavioral problems, professional "burnout" and, of course, research. The advantage is communication.

Take, for example, the university teacher who recently had to research an article on educational uses of videotex. He had neither time nor money to make lengthy, long-distance phone calls or to commission a database search by the library. Instead, he spent a few evenings at the microcomputer in the basement at his home, asking other teachers for their online help. The help came. All the needed information was gathered online. I am that teacher. This is that article.

Byron T. Scott is a contributing editor and associate professor at Ohio University's E.W. Scripps School of Journalism. His CompuServe User ID number is 70007,421.

Videotex Students Create Real-Time Project

It started as a class project. It may end by linking more than 150 schools and departments of journalism in the United States and Canada via CompuServe.

In the winter of last year, a college class in videotex began designing a forum for use by the Association for Education in Journalism and Mass Communication (AEJMC). Why? Because I was the instructor for "Writing and Editing Videotex" and wanted my students at the E.W. Scripps School of Journalism to taste for themselves the joys and frustrations of being a forum administrator. At first, the idea was merely intellectual fun — "an academic exercise" — but then we got serious.

As it happened, I was a member of a special AEJMC committee, looking at the future of the publications of the 2,000-member organization of educators. Usually, committee room and classroom don't mix. This time, I tried to sound casual in asking my fellow academicians:

"Why not let Ohio University students design a videotex forum for AEJMC? I think there's a class I can interest in the project . . ."

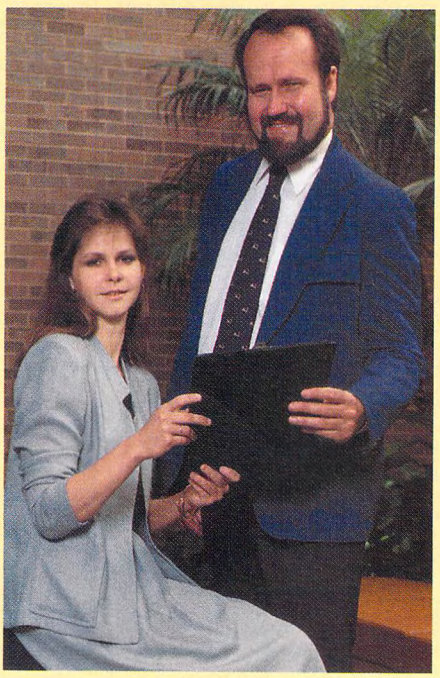
Asking that question was the hardest work I had to do; the students took it from there. Armed with the organization's consent, I dropped the idea on the eight students in the class. Despite the fact that we were a third of the way into the academic quarter, they fell on the task with enthusiasm. (Usually, college students don't react well to such surprises. Extra work, not laid out in the syllabus, is regarded as either fraud or indentured servitude.) Although I stressed that their design might not be accepted by either AEJMC or CompuServe, they went at it "for real."

Because CompuServe helped found the videotex program at Ohio University (see *Online Today*, September 1985), we were able to get cooperation and technical assistance. The students spent hours analyzing the communication needs of the organization and putting together dummy menus, text pages and data libraries for the forum. But before the project could be completed, the quarter ended. As it turned out, we would need much more time. And the enthusiasm was greater than ever.

As winter began hinting of spring, two graduate students came to me, protesting: "We just can't let the forum idea die!"

Just what I wanted to hear. Today, and thousands of online working hours later, Lucinda Davenport and Don Wallbaum are co-forum administrators of the AEJMC project. Davenport is a doctoral student from Texas who will teach next year at Michigan State University. Among the things she'll teach in East Lansing is videotex. Wallbaum is a former newspaperman who returned to school to get a master's degree; he will be looking for a job in videotex this fall.

Working together through spring and summer, Davenport and Wallbaum made the AEJMC project into a fully operational online product. Still regarded as an academic project, it was



Students connect educators: *Scott*

demonstrated to skeptical AEJMC academicians at the organization's annual meeting in Memphis last August. The response to a questionnaire they handed out to the viewers said they liked the forum — by a margin of better than 25 to 1.

Impressed, the AEJMC Board of Directors cleared the project for an online "beta test" during fall and early winter. Lodged "in background" on CompuServe, unlisted on any menu but reachable by those who knew its location, the AEJMC project area was visited by about 40 to 50 invited "guests."

Since it was a closed operation, those who wanted to participate had to leave their User ID numbers and qualifying information for the forum administrators before their access could be enabled. From the beginning of the test, a fascinating and unexpected "plus" was evident.

"We expected most of the usage to come from AEJMC officers and editors," explains Davenport. Special sections had been set aside for association business. "But current AEJMC members were outnumbered among the beta-testers by about 4 or 5 to 1. Instead, we attracted a lot of non-members who were interested in communications in general and in communications education specifically." Many of those who were asked into the experimental forum were journalists who had heard about the AEJMC project on the Journalism Forum (GO JFORUM), where the forum administrators helped in early publicity.

Discussions on journalistic issues quickly took on both academic and professional aspects. The educators would contend something or other was necessary; the working journalists would argue its practicality. "As a former journalist, I found a lot of the discussions more exciting that way," notes Wallbaum. "I think sometimes the professionals get incorrect ideas about the professors, and vice versa."

The AEJMC project could give journalism educators the ability to establish message threads on academic and professional issues, to look up job listings at colleges and universities, trade teaching tips and even computer programs, upload manuscripts for potential use in AEJMC journals, and build data libraries in such areas as enrollment trends and curriculum planning. Such topics may not excite the average videotex user, but then there are other forums to drop in on. If the more than 15-month-old project doesn't result in an official "birth"? Well, it was a great class project.

— *B.T.S.*

Educational Forums and Databases

Descriptions and GO commands for educational services on CompuServe are listed on this page. For an online directory of these services and others, type FIND EDUCATION at any prompt on the CompuServe Information Service.

FORUMS

ADCIS Forum

The Association for the Development of Computer-Based Instructional Systems is a nonprofit association dedicated to advancing the investigation and utilization of computer-based education and training. Nonmembers of the organization can review information included in this forum. **GO ADCIS**

Disabilities Forum

Disabled people share information, ideas, and experiences related to their daily living. Parents and families of disabled people and professionals who work with disabled people also share their experiences and information. **GO DISFORUM**

Education Forum

The Education Forum is designed to meet the diverse needs of people involved in the teaching and learning process. This includes teachers, parents, students, faculty members and other professionals in the education field. **GO EDFORUM**

Educational Research Forum

The Education Research Forum is for people who are interested in research about the process and products of education. Through the forum, the latest research findings are shared and compared, and a dialogue is established between researchers and educators in the schools. **GO EDRESEARCH**

EPIE Forum

The EPIE Forum is dedicated to the exchange of information and ideas concerning educational courseware, products and services. News and events of interest to computer-oriented educators, students and parents are discussed. **GO EPIEFORUM**

Foreign Language Forum

The Foreign Language Forum provides a service to both general and specific interests in the the area of foreign languages and foreign language learning. It includes conferences; a job bank for translators, educators and students; information on legislation and factors influencing the foreign language profession; and a list of professional organizations. **GO FLEFO**

LOGO Forum

The Logo Forum uses a light-hearted approach to explore the use of the Logo computer language and technologies that influence our lives. Cartoon characters keep interest high. **GO LOGOFORUM**

Science/Math Education Forum

This forum serves a variety of needs for science educators, students and others with interests in science and math education. It includes a large data library of software that can be downloaded into class and home computers. **GO SCIENCE**

Students' Forum

The Students' Forum is popular with middle school students who can share their ideas and interests with other students around the country. Teachers of junior high students exchange ideas on using the forum. **GO STUFO**

DATABASES

Academic Amer. Encyclopedia

The electronic edition of the Academic American Encyclopedia is filled with the latest in science, technology, politics, business, law, the arts, and social sciences as well as the whole range of historical data associated with a top-ranked encyclopedia. It is a 21 volume general reference source of over 30,000 articles and 10 million words updated and revised four times a year. **$ GO ENCYCLOPEDIA**

College Press Service

College Press Service is an online news service aimed at higher education professionals and students. Information includes legislative news, classroom trends, funding patterns and general administrative affairs. **GO CPS**

The College Board

The College Board provides information on all aspects of the college selection process, plus information on college planning, adult education and financial aid. A bibliography of College Board publications on these and other college-related topics is also included. **GO TCB**

Educational Travel Connection

The Educational Travel Connection is for the person who would like to travel and/or study abroad. It includes names and addresses of organizations that offer study abroad, descriptions of their programs, recommended readings and tips for your journey.

The Traveler's Challenge is a trivia game covering such topics as history, geography, art, literature and culture of foreign countries. **GO ETC**

EdVENT II

EdVENT II is a professional education database containing detailed descriptions of over 100,000 seminars, workshops and other programs available to the subscriber. **GO EDV**

EPIE Database

EPIE Database offers educational consumers objective evaluations of educational products, specifically educational software and hardware. Professional advice on products' worth and their effective use is also included in this searchable version of TESS, The Educational Software Selector. **$ GO EPE**

The Multiple Choice

The Multiple Choice is a collection of tests that are designed to be fun. There really is something for everyone from kids to adults. It includes IQ tests, personality tests, trivia questions, a test that simulates the Miller Analogies test, sports tests, and even a touch-type tutor with 20 lessons for learning touch-typing on your computer at your own pace. Stage II and Slogans for Sale are two of the many choices. **GO TMC**

Peterson's College Guide

Peterson's College Guide offers the subscriber a comprehensive database containing detailed descriptions of over 3,000 accredited or approved U.S. and Canadian colleges that grant associate and/or bachelor degrees. Subscribers may search colleges by characteristics or college name/location. **$ GO PCG**

The Whiz Quiz

The Whiz Quiz sponsored by Grolier's Academic American Encyclopedia will test your knowledge in a variety of categories including geography, current events, movies, sports, music, science, literature, history and myths and legends. **GO WHIZ**

WHOOPS
Hallmark
Color
MAIL
COME ALONG, BINKY! THAT'S NOT FOR YOU! THAT'S HALLMARK'S REVOLUTIONARY NEW SOFTWARE—COLOR MAIL* AN ELECTRONIC GREETING FACTORY THAT ALLOWS CONSENTING ADULTS TO COMMUNICATE IN COLOR, TIME, SOUND AND ANIMATED GRAPHICS!
?!
GRRRRRRR!

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GO EBB or circle 6 on the Reader Service Form.

Journey to Kesmai

Island Venturers Encounter Friends, Foes

The latest multi-player game on CompuServe is *The Island of Kesmai*. If the name sounds familiar, it might be because a single-player version, *Dungeons of Kesmai*, went online in 1982.

The Island of Kesmai, a role-playing adventure game, lets players explore terrain, battle with opponents and collect treasures. Each player creates a character that grows in skill, knowledge and abilities as the game progresses — provided, of course, the character survives *The Island*'s many challenges.

While similar in concept to *Dungeons*, *The Island* goes far beyond its online predecessor. *The Island* started out as a four-player game written for a NorthStar Horizon Z-80-based computer, but it has gone through years of development to make it a worthy addition to CompuServe's line of multi-player games.

The Island adventure starts in town, where the player can buy supplies — weapons, armor, food, healing potions and other specialized tools that can be used only by certain classes of characters. At the gymnasium, fighters can train to improve their battle skills. In the Thieves' Guild, clever pickpockets might pick up a few new tricks. Sorcerers and wizards can learn new spells to use against their opponents, if they can find a qualified and willing instructor.

The command structure works at a fundamental level, requiring you to manipulate objects in a precise manner. Yet, it gives you the option to do things like chase other characters, command characters to perform feats, and even affect characters who are not in the same room. The system keeps track of the items you own, your skill levels, what you have in each of your hands and more.

Although the graphics are primitive, this is not necessarily a drawback of the game. The graphics present a map of the location, including other characters in the room. A short description provides some illumination of the surroundings. The player's mind then can fill in the details of the background and any monsters or characters confronting him. The action can live, unhampered by cheap drawings or cardboard cut-out type figures, in the player's mind.

Kesmai Corp, also the author of *MegaWars III*, created *The Island of Kesmai* not just as a game but as an alternative world where players can live out their fantasies of adventure and conquest. "We fully expect that a political system will evolve, and someone may even try to proclaim himself King of Kesmai," says one of its programmers, John Taylor.

Learning new spells: *An* Island *wizard*

According to Kelton Flinn and Taylor, the two University of Virginia programmers who wrote it, *The Island* is still evolving. "We are working on it all the time. *Kesmai* is not a simple game. It is an environment where the players set the objectives," Flinn says. "Many different objectives are possible. Killing the dragon is a goal, but players can create their own goals. And while I can make no promises, we may be adding new things in the future."

The Island is a world populated with both computer-generated and "human" opponents. As with *MegaWars* and its successors, some of the most fierce competitors are the other people playing the game. In *The Island*, you can speak with the human opponents and possibly forestall a battle. Other players also can be strong allies. A conference room on the island makes it easy for players to get together and plan strategies, without the danger of encountering monsters.

The Island is a complex game; its online instructions occupy almost a dozen pages. A 181-page, hard-copy guide is available from CompuServe at a regular price of $16.50 and is recommended for serious games players. The manual contains interesting details about the history of the island, instructions on how to get started with the game, detailed descriptions of commands used in the game and combat information. Descriptions of *The Island*'s permanent inhabitants — the infamous dragon, wyverns, goblins, minataurs and more — also are included. To order the manual, type GO ORDER at any prompt on the CompuServe Information Service and follow the instructions.

When creating your character, battling monsters and buying or selling supplies, the game itself offers several commands and options, making it a flexible playing medium.

In addition to the online help menus and playing manuals, you can find hints and help in the Multi-Player Games Forum, by typing GO MPGAMES at any prompt on the CompuServe Information Service. You can leave messages for other players by using their character name, but it is best to find out their CompuServe User ID numbers so the messages will be flagged and marked for them when they enter the forum. You also can leave messages for Kesmai Corp. Flinn or Taylor will be happy to answer questions and offer hints.

They've been known to hide behind random character names in the Kesmai universe as well, in order to check on a game's progress. "It is a constantly progressing world," claims Kelton. "We check in frequently to see what is happening. The dragon has been killed a few times, but after a few days he regenerates." However, he has a warning. "A group of seven tried to sneak up and do him in. He spotted one of them before the others were ready and it was a slaughter."

To go to *The Island of Kesmai*, type GO ISLAND at any prompt on the CompuServe Information Service.

— Cheryl Peterson

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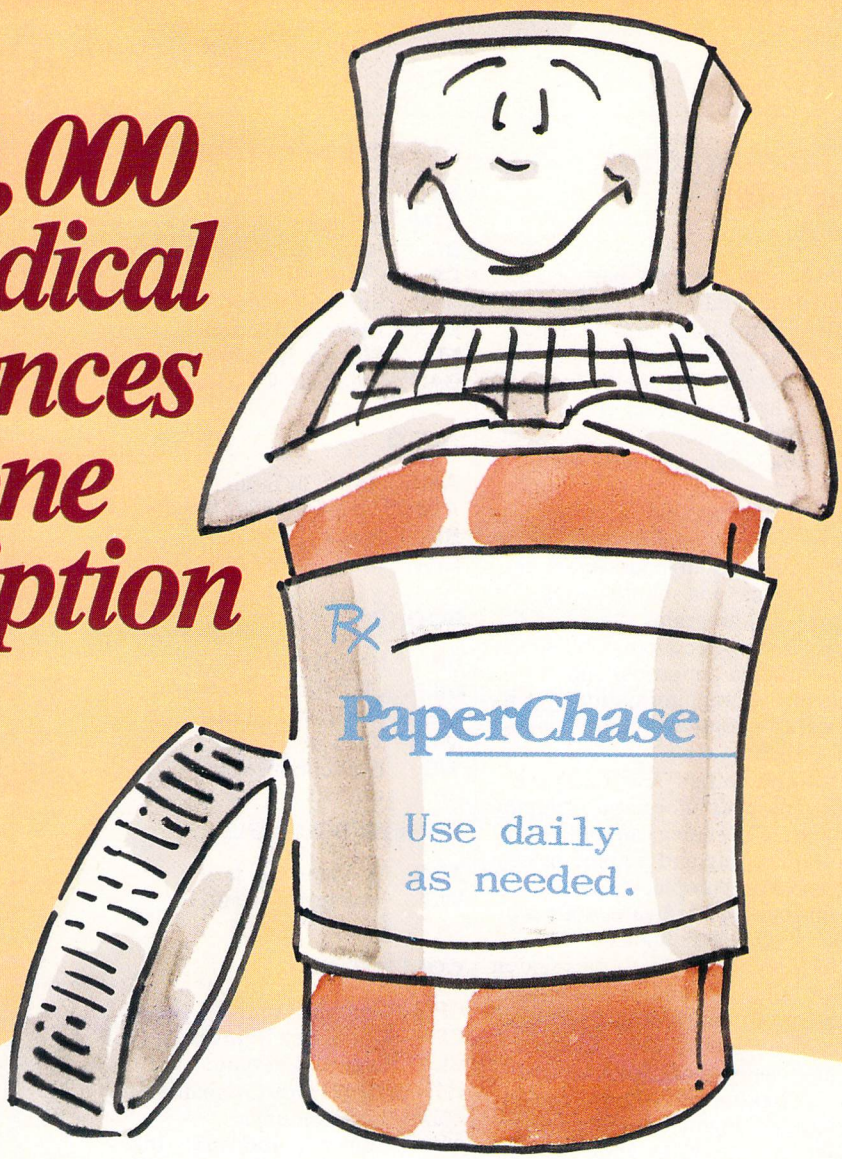

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- Teledata*Guide offers Tele*Flash, an electronic news and information clipping service, and Tele*Typing, an online professional typesetting and graphic design service. You also can place special orders on discounted hardware, software, and trade or computer books.
- Videolog is an online electronics search service for hobbyists and professionals who need precise, current data at their fingertips. Components can be located quickly and easily, along with second sources, current industry news, equivalent devices and engineering diagrams.
- NewsNet has one of the largest databases of specialized business publications. They will monitor hundreds of publications and newsletters for you, and with keyword searching and automatic retrieval of articles, provide you with customized business news.
- CBS/Fox Home Video has information for its video retailers on classic films and new releases, but all CompuServe subscribers can browse the informational databases and search for their favorite films by star, title, director, category or awards. Also online, find out about the current and future availability of special-priced releases from CBS/Fox, Key Video and Playhouse Video, available through CBS/Fox Home Video Stores nationwide.
- Buick's database includes driving tips for safety and economy, current technical and general information on Buick cars, and a selection of Buick novelty items for sale.

APPAREL/ACCESSORIES

APC	Apparel Concepts
ATH	Athlete's Outfitters
BF	Birkenstock Footwear
CA	Casual Tee's
RF	International Fur Wholesalers
LNX	Lenox of Fairfield
MJ	Milkins Jewelers
BAG	Woodstock Leather Co.

AUTO

AMS	AMS/Oil Dealer
ATB	American Tire Buyers
BU	Buick
CHV	Chevy Showroom

BOOKS

BB	Bantam Books
DII	Christian Book Store
MH	McGraw-Hill Inc.
MER	Mercury House
WB	Waldenbooks

CAREER/SELF-HELP

TDG	Teledata*Guide
WS	Wayside Systems

COMPUTING

CPG	Compu-Game
CE	Computer Express
CL	Conroy-LaPointe
HTH	The Heath Company
DSK	1-800-Floppys
MM	Marymac Industries Inc.
MO	Misco Computer Supplies
SR	Sears, Roebuck & Co.
SDA	Software Discounters of America

FINANCIAL

BNB	Beneficial National Bank
CI	Citibank
CN	Colonial National Bank
EL	Equitable Life
MU	Max Ule Discount Brokerage
SLG	Sun Life Group

GIFTS/GOURMET

AK	Alaska Teleshopper
EX	Executive Engraver
FTH	Fifth Avenue Shopper
FFS	Florida Fruit Shippers
SDG	The Grower's Store
HH	Hobbit Hole/Wyandotte Wines
LM	Lincoln Manor Baskets
SEA	Lobster Market
NUT	Morrow's Nut House
SIM	Simon David
TG	Topgar Tobaccos
WK	Walter Knoll Florist

HOME/LEISURE

CC	Cosmic Concepts
GG	The Game Getters, Inc.
MAO	Music Alley Online
RR	Rin Robyn Pool & Patio
VCS	Vacuum Advance

MERCHANDISE/ELECTRONICS

AXM	American Express
EGS	Electronic Gadget Store
ELM	Electronics Mart
NCS	Nationwide Catalog Shopper
SAV	Savings Scan
SR	Sears, Roebuck & Co.
SUN	Sunland Camera
XDM	Xerox Direct Marketing

ONLINE SERVICES

EF	EF Hutton
GLO	Globalink
NN	NewsNet
OA	Official Airline Guides
VL	Videolog Electronics

PERIODICALS

CW	CW Communications
DJ	Dow Jones & Co.
ME	EBSCO Magazine Entree
ECO	ECOPRESS
US	USA TODAY

PREMIUM MERCHANTS

BL	Bloomingdale's By Mail
NM	Neiman-Marcus
TIF	Tiffany & Co.

RECORDS/MOVIES

CF	CBS/Fox Video
EMC	Express Music CDs
MV	Magic Castle Video
MUS	Music Video
RC	RCA Direct Marketing
RW	Record World

SPORTS/HEALTH

BP	Barracuda Sports Products
BS	Berry Scuba Co.
HF	Carolina Health & Fitness
VM	VitaMenagerie

TRAVEL

AA	American Airlines
AF	Air France
AT	Ameropa Travel
WL	Worldwide Property Guide

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Current as of 07/86

The CompuServe Information Service Subject Index provides a list of the communication and information services available online, and it is updated continually. Refer to the most recent index of services online by entering **GO INDEX** at any prompt.

Use the most direct route to reach a service by entering **GO** followed by the Quick Reference Word provided in the index. Enter this command at any online prompt.

Find the services available under a topic of interest by entering **FIND** and the topic at any online prompt. For example, if you would like to see what services are offered concerning travel, enter FIND TRAVEL. You will receive a list of the services related to travel, along with the Quick Reference Words to proceed to each area.

COMPUTING AND TECHNOLOGY ..... GO COMPUTERS

Personal Computing Forums — Hardware

Amiga Forum ..... GO AMIGAFORUM
Apple Users Group ..... GO MAUG
Apple II and III User Group — MAUG™ ..... GO APPTWO
Apple User Groups Forum ..... GO APPUG
Macintosh Users Forum — MAUG™ ..... GO MACUS
Macintosh Developers Group — MAUG™ ..... GO MACDEV
Atari User Group (SIG*Atari) ..... GO SIGATARI
Atari 8-Bit Forum ..... GO ATARI8
Atari 16-Bit Forum ..... GO ATARI16
Atari Developers Forum ..... GO ATARIDEV
Commodore Users Network ..... GO CBMNET
Commodore Arts and Games Forum ..... GO CBMART
Commodore Communications Forum ..... GO CBMCOM
Commodore Customer Service Forum ..... GO CBM2000
Commodore Programming Forum ..... GO CBMPRG
Computer Club Forum ..... GO CLUB
Digital Equipment Corp. PC Forum ..... GO DECPC
Digital Equipment Corp. VAX Forum ..... GO VAXSIG
Digital Equipment Corp. PDP-11 Forum ..... GO PDP11
Epson Forum ..... GO EPSON
Heath User Group ..... GO HEATHUSERS
Hewlett-Packard Series 100 User Group ..... GO HP
IBM Users Network ..... GO IBMNET
IBM Communications Forum ..... GO IBMCOM
IBM Hardware Forum ..... GO IBMHW
IBM Junior Forum ..... GO IBMJR
IBM New Users Forum ..... GO IBMNEW
IBM Software Forum ..... GO IBMSW
Kaypro User Group ..... GO KAYPRO
OMNI Forum ..... GO OMNI
Orch-90 Computer Music ..... GO ORCH90
OS9 Operating System Forum ..... GO OS9
TRS-80 Color Computer User Group ..... GO COCO
TRS-80 Professional User Group ..... GO TRS80PRO
TRS-80 Model 100 SIG ..... GO M100SIG
Texas Instruments Forum ..... GO TIFORUM

Personal Computing Forums — Software/Languages

Ashton-Tate Forum ..... GO ASHTON
Autodesk Forum ..... GO ADESK
Borland International Forum ..... GO BORLAND
Computer Art SIG ..... GO ARTSIG
Computer Club Forum ..... GO CLUB
Computer Language Magazine ..... GO CLM
CP/M User Group ..... GO CPMSIG
Digital Research Forum ..... GO DRFORUM
Forth Forum ..... GO FORTH
LOGO Forum ..... GO LOGOFORUM
LOTUS Forum ..... GO LOTUS
1-2-3 Software Forum ..... GO LOTUS123
Jazz Software Forum ..... GO LOTUSJAZZ
Symphony Software Forum ..... GO SYMPHONY
LDOS/TRSDOS 6 Forum ..... GO LDOS
MicroPro Users Forum ..... GO MICROPRO
Microsoft Forum ..... GO MSOFT
Pascal Forum ..... GO MUSUS
Programmers Forum ..... GO PROGSIG
Software Publishing Forum ..... GO SPCFORUM
Whole Earth Software Forum ..... GO WHOLEEARTH

Electronic Publications and Other Interests

ANTIC ONLINE ..... GO ANTIC
Apples Online ..... GO AOL
COMPUTER LANGUAGE Magazine ..... GO CLM
Digital Research Inc. ..... GO DRI
Dr. Dobb's Journal ..... GO DDJ
FAMILY COMPUTING Magazine Electronic Edition ..... GO FAM
Microsearch ..... GO MSH
OMNI Forum ..... GO OMNI
Online Today ..... GO OLT
Tandy Newsletter ..... GO TANDY
Texas Instruments News ..... GO TINEWS
The World of LOTUS ..... GO LOTUS
Computing Tutorials ..... GO PCS121
Personal File Area ..... GO PER
VIDTEX™ Communication Software ..... GO VIDTEX

COMMUNICATION ..... GO COMMUNICATE

CB Simulator (Computer Conferencing) ..... GO CB
CB Society ..... GO CUP
Directory of Information Service Subscribers ..... GO DIRECTORY
EasyPlex Electronic Mail ..... GO EASY
National Bulletin Board ..... GO BULLETIN

Communication-Related Forums

Citizen's Band Interest Group ..... GO CBIG
Color Mail Exchange Forum ..... GO HALLMARK
Hallmark Color Mail ..... GO COLORMAIL
HamNet Ham Radio Network ..... GO HAMNET
Telecommunications Forum ..... GO TELECOM

NEWS, WEATHER, SPORTS ..... GO NEWS

AP Sports Wire ..... GO SPORTS
AP Videotex Wire ..... GO APV
The Business Wire ..... GO TBW
CompuServe's Executive News Service® ..... GO ENS
Computer Sports World ..... GO CSW
Hollywood Hotline ..... GO HOLLYWOOD
IQuest — The Online Reference Resource ..... GO IQUEST
ONLINE TODAY Electronic Edition ..... GO ONLINE
Sports News ..... GO SPORTS
ST. LOUIS POST-DISPATCH ..... GO SPD
Weather Reports, Forecasts, Maps ..... GO WEATHER

News and Sports Forums

Auto Racing Forum ..... GO RACING
Journalism Forum ..... GO JFORUM
National Issues and People Forum ..... GO ISSUES
OMNI Online ..... GO OMNI
Online Computer Report ..... GO RADIO
Outdoors Forum ..... GO OUTDOORS
Sailing Forum ..... GO SAILING
Sports Forum ..... GO SPORTS

TRAVEL SERVICES ..... GO TRAVEL

ABC Hotel Database ..... GO HOTELS
Adventures in Travel ..... GO AIT
American Express Travel Services ..... GO AXP
Discover Orlando ..... GO ORLANDO
Educational Travel Connection ..... GO ETC
National Tourism Citilog ..... GO CITIES
Official Airline Guides ..... GO OAG
Pan American Airlines Information ..... GO PANAM
State Department Travel Briefings ..... GO STATE
Sun and Sand Vacations ..... GO VACATION
Travelshopper™ ..... GO TWA
TravelVision ..... GO TRV
Vermont Tourism ..... GO VERMONT
VISA Advisors ..... GO VISA
West Coast Travel ..... GO WESTCOAST
What's New in Travel ..... GO WNT
WorldWide Exchange ..... GO WWX

Travel-Related Forums

Florida Travel ..... GO FLORIDA
Travel ..... GO TRAVSIG

Aviation Services

Aviation Services ..... GO AVIATION
Airline Flight Information ..... GO FLIGHTS
AOPA Forum ..... GO AOPA
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Aviation Safety Institute ..... GO ASI
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Weather Reports and Forecasts ..... GO AWX

SHOPPING SERVICES ..... GO SHOP

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CompuServe's Online Product Ordering ..... GO ORDER
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Casual Tee's ..... GO CA
International Fur Wholesalers ..... GO RF
Milkins Jewelers ..... GO MJ
Woodstock Leather Co ..... GO BAG

Auto
American Tire Buyers ..... GO ATB
AMS/Oil Dealer ..... GO AMS
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Chevy Showroom ..... GO CHV

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Christian Book Store ..... GO DII
The McGraw-Hill Book Company ..... GO MH
Mercury House ..... GO MER
Waldenbooks ..... GO WB

Career/Self-Help
Teledata*Guide ..... GO TDG
Wayside Systems ..... GO WS

Computing
Compu-Game ..... GO CPG
Computer Express ..... GO CE
Conroy-LaPointe ..... GO CL
The Heath Company ..... GO HTH
1-800-FLOPPYS ..... GO DSK
Marymac Industries Inc ..... GO MM
Misco Computer Supplies ..... GO MO
Sears, Roebuck and Co ..... GO SR
Software Discounters of America ..... GO SDA

Financial
Beneficial National Bank ..... GO BNB
Colonial National Bank USA ..... GO CN
Equitable Life ..... GO EL
Max Ule Discount Brokerage ..... GO MU
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Executive Engraver ..... GO EX
Fifth Avenue Shopper ..... GO FTH
Florida Fruit Shippers ..... GO FFS
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Lobster Market ..... GO SEA
Morrow's Nut House ..... GO NUT
Simon David ..... GO SIM
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Vacuum Advance ..... GO VCS

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Sears, Roebuck & Co ..... GO SR
Sunland Camera ..... GO SUN
Xerox Direct Marketing ..... GO XDM

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EF Hutton ..... GO EF
NewsNet ..... GO NN
Official Airline Guides ..... GO OA
Videolog ..... GO VL

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Dow Jones & Co ..... GO DJ
EBSCO Magazine Entree ..... GO ME
Ecopress ..... GO ECO
USA TODAY ..... GO US

Premium Merchants
Bloomingdale's By Mail ..... GO BL
Neiman-Marcus ..... GO NM
Tiffany & Co ..... GO TIF

Records/Movies
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Express Music CDs ..... GO EMC
Magic Castle Video ..... GO MV
RCA Direct Marketing ..... GO RC
Record World ..... GO RW

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Berry Scuba Company ..... GO BS
Carolina Health & Fitness ..... GO HF
VitaMenagerie Discount Vitamins ..... GO VM

Travel
Air France ..... GO AF
American Airlines ..... GO AA
Ameropa Travel ..... GO AT
Worldwide Property Guide ..... GO WWX

MONEY MATTERS AND MARKETS **GO MONEY**
Agricultural Commodity Price & Volume Information Since 1979 ..... GO CPRICE
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Bond Prices & Volumes Since 1973 ..... GO BONDS
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Commodity Market News & Analysis from News-A-Tron ..... GO COMMODITIES
Commodity Market News & Analysis from AgriCommodities ..... GO COMMODITIES
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Company Information from Disclosure II℗ ..... GO DISCLOSURE
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Tax Information from the Internal Revenue Service ..... GO IRS
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U.S. Dollar Outlooks from Money Market Services ..... GO MMS

Online Banking and Brokerage Services
Bank One, Columbus, Ohio ..... GO BOC
Huntington National Bank, Columbus, Ohio ..... GO HNB
Max Ule & Co. (Brokerage Services through Tickerscreen) ..... GO TKR
NCNB National Bank, Charlotte, N.C. ..... GO NCB
PSFS, Philadelphia ..... GO PSFS
Quick & Reilly (Brokerage Services through Quick Way) ..... GO QWK
Rappaport Diamond Brokers ..... GO RDC
Shawmut Bank, Boston ..... GO SHW
Southeast Bank, Miami, Florida ..... GO SEB
Unified Management (Mutual Fund Services from Liquid Green) ..... GO UMC
United American Bank, Memphis ..... GO UAB

Financial and Investment Forums
Ashton-Tate Support Library ..... GO ASHTON
Ask Mr. Fed Forum ..... GO ASKFED
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AP Videotex, Business	GO APV
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Checkbook Balancer	GO CHECKBOOK
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Executive News Service©	GO ENS
DR. JOB	GO DRJ
EdVENT II	GO EDV
Fedwatch Newsletter	GO MMS
Independent Insurance Agents Association	GO INSURANCE
Industry Directories	GO DIR
Information USA	GO IUS
Internal Revenue Services	GO IRS
IQuest — The Online Reference Resource	GO IQUEST
Loan Amortization	GO FINANCE
Microsearch	GO MSH
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Rare Disease Database	GO RDB
Social Security Administration	GO SSA
Stevens Business Reports	GO SBR
SuperSite Demographic Information©	GO SUPERSITE
U.S. Government Publications	GO GPO
World-Wide Investment System	GO REAL ESTATE
Reference and Training Forums	
Association for the Dev. of Computer-based Instructional Sys.	GO ADCIS
Disabilities Forum	GO HANDICAPPED
Educational Products Information Exchange	GO EPIEFORUM
Working From Home	GO WORK
Industry and Professional Forums	
American Association of Medical Systems and Informatics	GO MEDSIG
Aircraft Owners and Pilots Association	GO AOPA
Aviation Forum	GO AVSIG
Broadcast Professional Forum	GO BPFORUM
Communications Industry	GO MEDIA
Consumer Electronics Forum	GO CEFORUM
Independent Computer Consultants Association	GO ICCAFORUM
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Legal	GO LAWSIG
Military Veterans Services	GO VET
Public Relations and Marketing	GO PRSIG
Public Relations Society of America	GO PRLINK
Safetynet Forum	GO SAFETY
Telecommunications	GO TELECOM
US Entreprenuers Network	GO USEN
Work From Home	GO WORK
Writers and Editors	GO WESIG

HOME, HEALTH & FAMILY	GO HOME
Calculate Net Worth	GO FINANCE
Checkbook Balancer	GO CHECKBOOK
Directory of Public Officials	GO DPO
HealthNet	GO HNT
Home Management	GO HOME
Human Sexuality	GO HSX
Independent Insurance Agents Association	GO INSURANCE
Information USA	GO IUS
Internal Revenue Services	GO IRS
Loan Amortization	GO FINANCE
Naked Eye Astronomy	GO NIA
The National Satirist	GO KCS
New Car Showroom	GO NEWCAR
Personality Profile	GO TMC
Social Security Administration	GO SSA
General Interest Forums	
Aquarium & Tropical Fish	GO FISHNET
Comic Book Forum	GO COMIC
Consumer Electronics	GO CEFORUM
Disabilities Forum	GO HANDICAPPED
Family Computing Forum	GO FAM
Food/Wine Forums	GO FOOD
Good Earth Forum	GO GOODEARTH
Ham Radio Forum	GO HAM
Human Sexuality	GO HSX
Literary Forum	GO LITFORUM
Music Forum	GO MUSICFORUM
Model Aviation Forum	GO MODELNET
National Issues and People Forum	GO ISSUES
Online Computer Connection	GO RADIO
Religion	GO RELIGION
Science Fiction	GO SCI-FI
Space Forum	GO SPACEFORUM
WITSIG	GO WITSIG
Work From Home	GO WORK

EDUCATION AND REFERENCE	GO EDUCATION
Education	
The College Board	GO TCB
Educational Products Information Exchange (EPIE)	GO EPE
EdVENT II	GO EDV
Handicapped Users' Database	GO HUD
Peterson's College Guides	GO PCG
The Multiple Choice	GO TMC
Touch-Type Tutor	GO TMC
The Whiz Quiz	GO WHIZ
Reference	
Academic American Encyclopedia	GO ENCYCLOPEDIA
Directory of Public Officials	GO DPO
U.S. Government Publications	GO GPO
Information USA	GO IUS
IQuest — The Online Reference Resource	GO IQUEST
Microsearch	GO MSH
SuperSite Demographic Information	GO SUPERSITE
Education Forums	
Assoc. for the Development of Computer-based Instructional Systems Forum	GO ADCIS
Disabilities Forum	GO DISABILITIES
Educational Products Information Exchange Forum	GO EPIEFORUM
Educational Research Forum	GO EDRESEARCH
Educators Forum	GO EDFORUM
Foreign Language Education Forum	GO FLEFO
LOGO Forum	GO LOGOFORUM
Science and Math Education Forum	GO SCIENCE
Students' Forum	GO STUFO
Space Forum	GO SPACEFORUM

ENTERTAINMENT AND GAMES	GO GAMES
Entertainment	
Hollywood Hotline	GO HHL
Movie Reviewettes	GO MOVIES
Rocknet	GO ROCK
Soap Opera Summaries	GO SOS
Board/Parlor Games	
Astrological Charter	GO ASTROLOGY
Baffle Word Game	GO BAFFLE
Biorhythm Charting	GO BIORHYTHM
Casino Blackjack	GO BLACKJACK
Hangman	GO HANGMAN
Trivia/Thought Games	
The Multiple Choice	GO TMC
Word Scramble	GO SCRAMBLE
The Whiz Quiz	GO WHIZ
SHOWBIZQUIZ	GO SHOWBIZ
You Guessed It!	GO YGI
The Traveler's Challenge	GO ETC
Adventure Games	
Original Adventure	GO ORADVENT
New Adventure	GO NEWADV
House of Banshi	GO BANSHI
Scott Adams Adventure Games	GO ADAMS
Island of Kesmai	GO KESMAI
CastleQuest	GO CQUEST
BlackDragon	GO BLACKDRAGON
Castle Telengard	GO CASTLE
Terrestrial	GO TERRESTRIAL
Sports Games	
Golf	GO GOLF
Football	GO FOOTBALL
War Games/Simulations	
MegaWars I	GO MEGA1
Megawars III	GO MEGA3
SpaceWAR	GO SPACEWAR
SeaWAR	GO SEAWAR
Command Decision	GO COMDEC
Games Forums	
The Electronic Gamer	GO TEG
The Gamer's Forum	GO GAMERS
The Multi-Player Games Forum	GO MPGAMES

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Keeping up with all of the offerings of the world's largest general information service is quite a challenge. New products are always arriving. It's been that way every month for years. And while you may have favorites, there are a world of other offerings you may have never visited.

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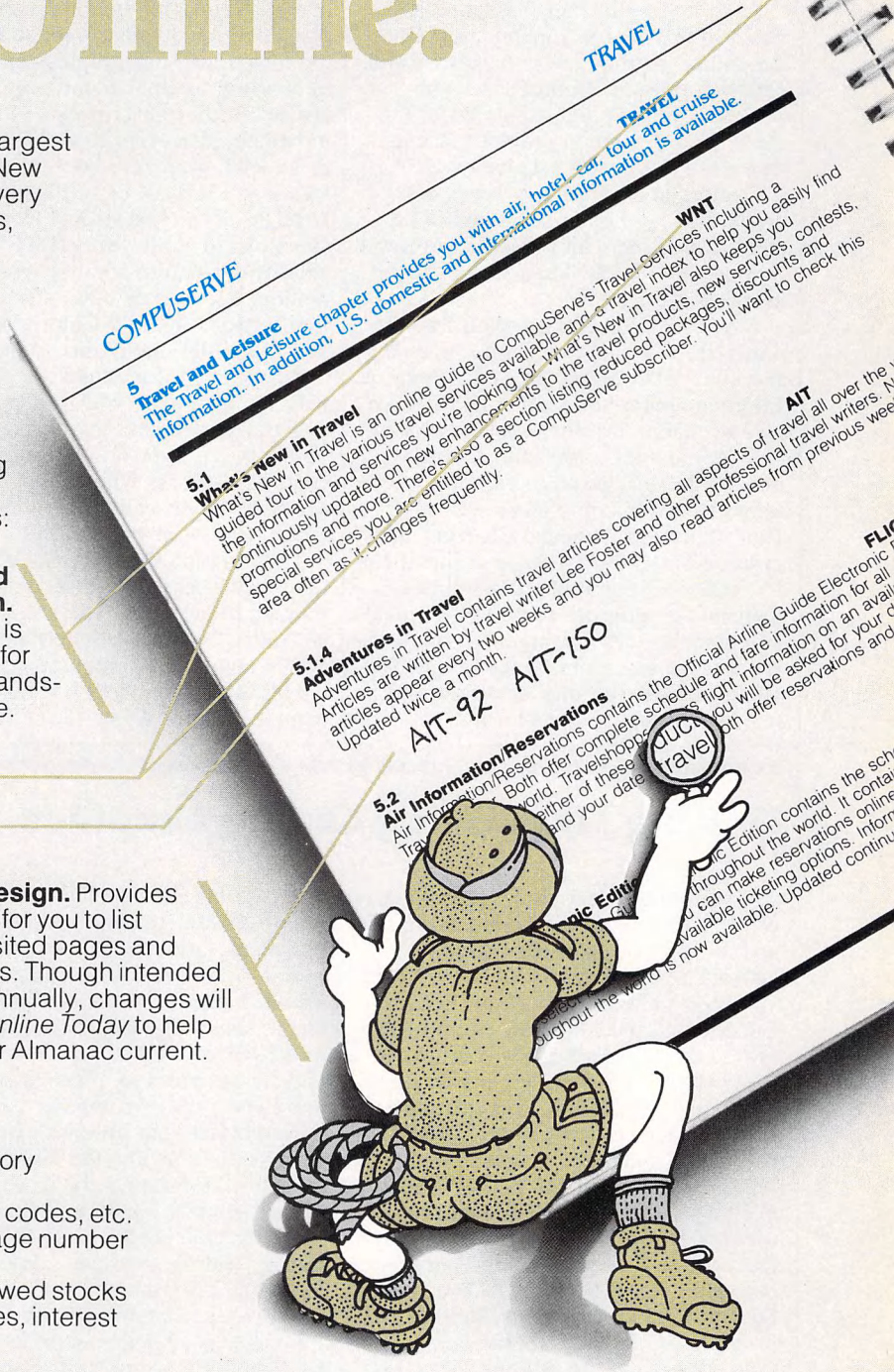
Fully-indexed. Uses a numerical coding system to help map the relative position of products and product groups—providing users with a "sense of location" within the service.

Workbook design. Provides ample space for you to list frequently-visited pages and insert updates. Though intended for re-issue annually, changes will be noted in *Online Today* to help you keep your Almanac current.



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Getting the Picture

Graphics Add Dimension to Online Services

Pictures behind the personalities: *On-screen faces in RLE graphics.*

At first, graphics might seem complicated to the microcomputer user. But depending on the type of hardware and software utilized, CompuServe subscribers can have immediate access to clear, high-resolution graphics or can download them with relative ease.

CompuServe offers two types of graphics: Run Length Encoded (RLE) and North American Presentation Level Syntax (NAPLPS). Most CompuServe graphics are RLE.

NAPLPS decoders are built into the hardware of certain machines, such as the Sony VDX Series or AT&T Sceptre. Microcomputer software emulators are also available for other systems; for instance, the Tandy 1000 and Commodore. NAPLPS graphics can only be found on two CompuServe services, Biorythms and Financial Charting. Most systems with NAPLPS can automatically obtain these graphics capabilities. Depending upon the computer/terminal combination, certain graphics are available in up to six colors. Since so much depends upon the parameters of the specific system, the service's forum administrator and data libraries can be consulted for details. Also, some medium resolution RLE graphics can be used in charting weather radar maps (see below for further descriptions of services mentioned). In order to automatically receive RLE graphics, users need certain forms of VIDTEX or, if they have an IBM PC, The Professional Connection (Version 2.0 or above). VIDTEX is available from CompuServe for Apple; Commodore 64; IBM PC, PC-XT, and PCjr; Radio Shack TRS-80 Color Computer and Model III; and Atari computers.

Prices vary; if graphics are available with the computer VIDTEX package, it is the easiest and most convenient way to obtain them. Type GO VIDTEX for details. Subscribers who cannot directly access graphics can possibly download images and view them offline.

The Aviation Forum (GO AVSIG) contains a number of files in its data library 5 relating to graphics. The key word here is "radar." Along with certain Radio Shack computers, programs are available for the Commodore 64, Texas Instruments, Kaypro, Apple II and II+, Macintosh, Hewlett Packard 150, Atari, IBM PC, Osborne, TRS-80 Model III and TRS-80 Model 100. The data libraries for the Aviation Forum and the CB Forum (GO CBIG) are cross-referenced so users have access to both. From DL 5 in the Aviation Forum, type BRO *.PIX; files from both forums relating to a specific machine can be read or downloaded.

The graphics offered by CompuServe are as diverse as CompuServe itself. A brief summary of each follows:

• CB Simulator Forum (GO CBIG). This forum contains online photos of people who use the CB service.

So far, approximately 60-75 images can currently be viewed. Subscribers choose pictures by reviewing a list of

Getting Help Using Online Graphics

If you want to learn how to display any of the online graphics mentioned in this article or if you have photographs, artwork or other source documents that you want converted to a Run Length Encoded graphics format, you now can access the Picture Support Forum on CompuServe for complete information.

Through this forum, you can learn how to make your computer "read" the graphics. CompuServe subscribers with VIDTEX can enter the Picture Support Forum's Data Library 2 (contains artwork converted to RLE graphics) or Data Library 3 (contains photographs converted to RLE graphics) by typing DL2 or DL3 at the forum function prompt. To view any of the files online, type "Read" at the prompt. Also, by using the "Download" command, it is possible to download the files to a personal computer disk.

Those subscribers not having VIDTEX should access Data Library 1 to locate machine-specific utility programs. Complete help files for all commonly-used computers are available in this data library, according to Larry Wood, forum administrator. The files enable users to convert the graphics to an RLE format or to download and convert the graphics to a format that their particular type of computer can use.

Additional help files are available in Data Library 0. The file YESRLE.TXT includes information about what makes a good graphic image, and the file ORDER.TXT explains how the Picture Support Forum staff can convert images to an RLE format.

While the Picture Support Forum functions as a graphic information center for CompuServe subscribers, it also serves as a support area for other forums needing to add RLE graphics to data libraries, according to Wood. For example, he has converted a dozen space-related pictures to an RLE format and installed them in the Space Forum. His intent is to get other forum administrators started with RLE graphics offerings in their areas.

To encourage submissions of graphic images to the Picture Support Forum, Wood is having a series of monthly contests with prizes. Data Library 4, titled "New and Upcoming Graphics," is reserved for new submissions. At the end of each month, the most outstanding graphic will be listed as a "Hall of Fame Graphic" and its creator will receive 30 days of free connect time in the Picture Support Forum. Contest submissions so far have included pictures of the space shuttle, political figures, forum administrators, cartoons and Disney characters, says Sharon Baker, CompuServe's manager of forum products.

To find out how to submit an entry or to ask questions about displaying graphics, access the Picture Support Forum by typing GO PICS at any prompt on the CompuServe Information Service.

"handles" and User ID numbers. CompuServe's Pat Phelps encourages forum members to send in facial photos for inclusion in the service. "It's a great way to meet people and actually see what the person you're communicating with looks like," she says.

• VIDTEX Weather Radar Maps (GO MAPS). For a small surcharge, users can view the latest U.S. radar reports and depiction maps. Current surface weather maps and the NWS Network Radar Location Coverage Map are also available.

Subscribers can access maps of specific parts of the U.S., along with customizing maps to suit their needs. "The maps not only allow interested persons to see the intensity and location of precipitation but also help pilots in making flight plans," notes CompuServe's Bob Snider.

• FBI's Ten Most Wanted (GO TEN or GO FBI). This service enables users to get a complete picture and detailed description of the FBI's Ten Most Wanted criminals. The vital statistics (height, weight, age, etc.) listed next to the photo along with other characteristics, such as scars or a medical condition, may help in identifying and apprehending these criminals.

• Hollywood Hotline (GO HHL). Users can choose from over 100 online photos of movie stars, ranging from Ginger Rogers to Tom Selleck. According to CompuServe's Linda Thoirs, more pictures will be added in the future.

"We're also considering using photos in a game format, such as a 'Hangman' type challenge, in which the subscriber guesses the star's identity from selected facial features," she comments.

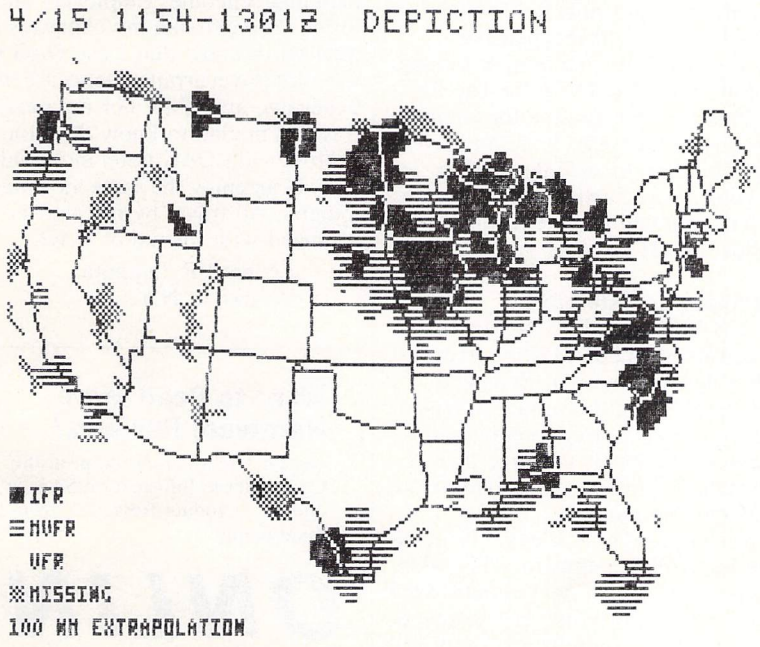
• Financial pricing (GO MONEY or GO INTERFACES). Located in the Micro Software Interfaces section (choice 5) on the Financial Pricing Menu, these graphs depict price and volume history for stocks and other securities. Market indicators are also graphed. Users can choose from Telidon/NAPLPS charting or Videotex charting; there is a small surcharge for each graph. To use this service, subscribers need to know a company's cusip number or ticker symbol which can be obtained by typing GO SYMBOLS.

• Biorhythms (GO GAM-29). The biorhythm program will plot personalized charts for any year, including emotional, physical, and mental cyles and highlighting critical days. Users may choose from one to several month periods. The choice between standard and NAPLPS graphics is also available here.

• Games (GO GAMES). Graphics are integral to the playing and execution of several games. MegaWars I and III, SeaWar, SpaceWar, the Island of Kesmai, and Hangman use maps, ships, and other visual aids. "Some of the games are highly complex, so the graphics enhance them, making them almost real to the player," explains CompuServe's Larry Shelley.

"Graphics are an area of growth within CompuServe," observes Thoirs. "There are always new ways to explore additional uses." For instance, during the next few months, the New Car Showroom (GO ATO) will be adding pictures of automobiles to its side-by-side comparison and pricing database. "Users can get an idea of the basic shape of the car in addition to all the features and specifications," she explains. Graphics are here to stay, and will continue to enhance and expand subscriber services.

— Sandra Gurvis



Creating graphic images of flight conditions: *Weather Depiction Map summarizes information from surface reports every 15 minutes.*

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NEW PRODUCTS

Financial Aid Program Added

The College Board service on CompuServe has added the new "Estimating Your Eligibility for Financial Aid" program for the 1986-87 academic year.

This interactive program is designed for the dependent student to estimate his or her eligibility for financial aid based on costs for specific colleges and on the family's financial situation.

Questions used in determining the student's eligibility for aid cover the expected costs for tuition and fees; books and supplies; room and board; transportation expenses; and the family's size, income, assets and taxes. GO TCB

OMNI Magazine Forum Opens

OMNI Magazine, a publication with a reputation for stories about the leading edge of science and technology, now offers the OMNI Forum.

CompuServe subscribers now can read about and discuss innovations in science and medicine, UFOs, artificial intelligence and technology. The forum's data libraries contain articles that have appeared in the magazine and other articles available exclusively online. GO OMNI

Grolier Encyclopedia Demo Live

The Grolier Academic American Encyclopedia Demo is a selection of the 100 most-used articles from the main encyclopedia. CompuServe subscribers considering signing up to use the AAE on a regular basis can use the demo to find out what the encyclopedia contains and how it works.

The AAE Demo is available as option 5 on the AAE main menu and does not carry a surcharge. GO AAD

Online Research Service Opens

IQuest, a comprehensive research and reference service, now is available on the CompuServe Information Service. IQuest provides access to more than 700 databases in such areas as business, technology, news, science, education and medicine. All of this information is accessible through a series of menus with a uniform set of search charges.

IQuest offers two ways of finding the information you need. IQuest-I guides you through a series of menus that help you specify your topic of interest. Then, IQuest selects a database for you and executes your search. If you already know which database you need, IQuest-II allows you to enter the name and go directly to that database.

IQuest is billed at base connect rates plus transaction charges for information searches. GO IQUEST

SeaWar Game Enhanced

An enhanced version of the game *SeaWar* offering CompuServe subscribers more commands and capabilities now is available. Military promotions now are announced in the game's War Room, and players will receive congratulatory EasyPlex messages when they are promoted.

In addition, players can use the /GO command to leave the game and go to a specified CompuServe menu page. The /SQUELCH command now allows players to block reception of messages from specified ships. Other internal revisions have been made to improve the overall quality of the game. GO SEAWAR

Information USA Available

Information USA, now available on the CompuServe Information Service, provides an online guide to the US government's informational holdings. Much of the information available through this service is free or inexpensive.

If you don't find what you're looking for in Information USA, go to The Electronic Answer Man section for common questions and answers. You can leave a message for The Electronic Answer Man; your answer will be added to the section or you will receive it through EasyPlex. GO IUS

USEN Expands Data Library

The US Entrepreneurs' Network has expanded its Marketing Data Library to include sales information. Renamed Marketing & Sales, this area now has information to help entrepreneurs and business professionals enhance their selling skills, learn new ways to motivate salespeople and more.

A newsletter, "Great Ideas," is an exclusive for USEN members. This sales-oriented online newsletter is contributed by Mark H. Sanborn and Associates, a training and consulting firm specializing in marketing and sales communications. GO USEN

OAG Winners Named

Editor's Note: *Leonard P. Iaquinta of Brooklyn, N.Y., wrote the winning essay in the Official Airline Guides' Scanset Contest. Iaquinta's prize was a free Scanset terminal ($800 value) and five hours of OAG Electronic Edition free usage on CompuServe. His essay appears in this column.*

The User ID numbers of five other CompuServe subscribers who accessed OAG Electronic Edition during May were selected in a random drawing. Reid Ashe, Alan D. Suding, David A. Heidmann, Todd A. Marshall and Michael J. Baldwin each received a Scanset terminal.

How OAG Electronic Edition Saved Time and Money for me

[Written at 33,000 feet, between Milwaukee and LaGuardia]

When it's time to make flight plans, my first stop is the OAG Electronic Edition. I work in the not-for-profit sector, so choosing the cheapest available flights that meet my schedule demands is not merely desirable — it's required. Often, so is documentation.

Sometimes finding the lowest fare means scanning alternate airports, such as Newark, Kennedy and LaGuardia in the New York City area, where I live. Information on fare limitations allows me to compare values in detail without relying on busy travel agents to return a call — often too late when I'm on a tight planning schedule. Employers and institutions reimbursing my expenses are reassured to know that I use OAG to ensure my travel arrangements are the least expensive available. For my personal travel, I'm glad to know that, too.

Now, with OAG hotel/motel information, I can enjoy the same advantages for lodging. All travel by my staff is arranged with the aid of OAG.

Leonard P. Iaquinta
Brooklyn, N.Y.

Want to Read More Hardware Reviews?

GO OLT from any prompt in the CompuServe Information Service and choose "Product Reviews" from the main menu.

ONLINE TODAY

Answers From Customer Service

Q: What information does CompuServe offer concerning financial aid available to college students?

A: CompuServe provides financial aid information through The College Board and Peterson's College Guide. You can receive general information and assistance on the types of financial aid available, alternatives in applying for financial aid, and even a program that will assist you in estimating your financial aid eligibility for the year. Access The College Board by typing GO TCB at any prompt, and Peterson's College Guide by typing GO PETERSONS at any prompt. You can find the financial aid information in Peterson's College Guide under the expenses heading for each college.

Q: Does CompuServe offer a service that will provide me with quick access to training and development seminars around the United States?

A: CompuServe recently introduced the EdVENT II Seminar Directory. EdVENT II is a continuing professional education database containing detailed descriptions of over 100,000 seminars, workshops and other programs offered in the United States and Canada. Each description includes a title, content summary, sponsor, location, date, duration and cost information. You can selectively search the entire EdVENT II database to find those entries that meet your specific needs. To access the EdVENT II Seminar Directory, type GO EDVENT at any prompt.

Q: How can I effectively use CompuServe to help my children who are in or preparing to go to college?

A: CompuServe offers several areas to help those attending or planning to attend college. Type FIND COLLEGE at any prompt and you will find Peterson's College Guide, The College Board, The College Press Service and *Grolier's Academic American Encyclopedia*. You will be able to find information on financial aid, placement tests, campus news, housing, assistance in choosing your college and more.

Q: Is there an area on CompuServe where students and teachers can meet?

A: CompuServe provides the Students' Forum for all CompuServe subscribers. The Students' Forum has a conference mode for real-time communication, a bulletin board for messages, and data libraries for uploading and downloading any files of interest. Topics covered range from computers to hints on finding the right college. To enter the Students' Forum, type GO STUFO at any prompt.

Q: How can I find the right college for my child?

A: You can search a database of over 3,000 US and Canadian colleges by typing GO PETERSONS at any prompt. Peterson's College Guide will allow you to search for a college based on any number of the 16 criteria, such as location, size, academic majors, housing, costs and admission requirements.

Q: Does CompuServe offer a service in which I can get college and campus news?

A: CompuServe offers the electronic version of The College Press Service. This service, accessible by typing GO CPS at any prompt, offers news articles that affect students and administrators on college campuses throughout the United States. In addition to news articles, The College Press Service offers students an electronic classified section.

Q: I am interested in traveling while working on my college degree. How can CompuServe assist me?

A: CompuServe offers the Educational Travel Connection, a service providing a listing of sponsored, study-abroad programs that can be applied toward your degree. This service will help you find information on study-abroad internships, including details about the culture you would encounter as a participant in each program. To learn more about the Educational Travel Connection, type GO ETC at any prompt.

Talk to Us

Online Today Electronic Edition has a Feedback area for letters to the editor. Simply type GO OLT-33 from any prompt in the CompuServe Information Service.

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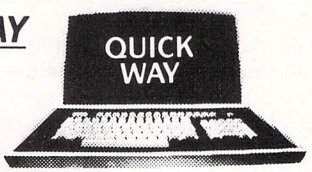

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Industry Analysts Rely on Online Resources

When you need information fast, chances are you seek out an expert. But for the experts, getting the answers may not be as easy — which is why many top-flight industry analysts and market researchers are turning to the power of online resources.

One such expert is Gene Norrett of the San Jose-based Dataquest Inc. Norrett is responsible for supplying the answers on the semiconductor industry. His expertise has an impact on individual companies and governments worldwide, and even on the future of technological developments.

Norrett, vice president and associate director of Dataquest's semiconductor industry group, has developed two online databases that help his company's clients receive time-sensitive data on the semiconductor industry several weeks earlier than they might get it otherwise. The databases are available privately through CompuServe's Business Information Services for those semiconductor companies that subscribe to them through Dataquest.

The Worldwide Semiconductor Trade Statistics Database is used by clients for tactical, short-term planning control and contains worldwide statistics distributed by the Semiconductor Industry Association. The information is provided monthly and is used by all major semiconductor companies. "It is a fundamental part of their business," says Norrett.

WSTS contains worldwide bookings of new orders; worldwide shipments by month, product and region of the world; and unit and dollar information. The database debuted on CompuServe in January, offering a timely alternative to the print version. "Now that we can come live to our customers online, all they have to do is curl up in front of their favorite computer and read it," Norrett says.

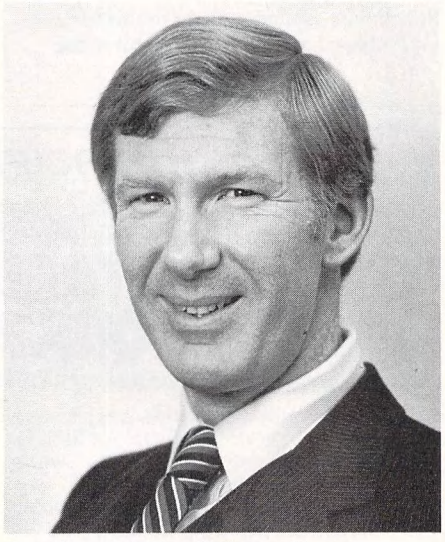
Since WSTS is a simple presentation of the information and not an analysis, Dataquest also developed its own database that features detailed analyses of the intricate movements and technology trends in the semiconductor industry.

Updated weekly, the information is presented by company and is an analysis of individual company performance. Included are product sales, explanations of how individual company performances stack up in the industry, analyses on companies' strengths and weaknesses, as well as new-product announcements and industry news.

Analyses of the volatile worldwide semiconductor trade situation concern not only those in the corporate boardroom but also government leaders.

"The information in the Dataquest system is used by management in forming long-term strategic alliances with other companies," says Norrett, who is convinced that publishing the data online is essential to the US industry's success.

"Semiconductor information has taken the world electronics industry on an accelerating pace. At one time, products could be on the marketplace for three or four years, but now the life cycle is much shorter. Manufacturers need to have the most timely information available. The information provided on Dataquest is critical for getting to the window of success," he explains.



Creating exclusive listings: *Norrett*

For a company such as Arthur D. Little of Boston, Mass., information is business. The firm boasts four corporate libraries teeming with professional researchers. In addition to the standard books and magazine and journal subscriptions, these specialists also have access to 26 online services, including CompuServe. Librarians use the electronic services to research background information on companies, products, industry trends and statistics.

Arthur D. Little's Library Manager Ann Wolpert says of the online databases, "We use them a great deal and in unconventional ways. We are a multidisciplinary firm, conducting research and development as well as management-consulting so we never know what our next question will be or what resources we will need to solve the problem."

Wolpert notes that the 100-year-old firm has a well established library print collection, but that online resources are an important supplement. "We work in some rather esoteric areas and need the information that is available only electronically."

Although all of Arthur D. Little's librarians are trained on all 26 online databases, Wolpert says some of the professional analysts prefer conducting their own searches. "Those who do it themselves prefer using CompuServe over many other services, simply because it is very user-friendly."

Audrey Mandela, a senior analyst with The Yankee Group, says she too finds herself turning to computerized information services because "it is much faster than flipping through magazines"

Giving clients data instantly: *Mandela*

to discover the latest industry trends.

Mandela says clients also like the speed and convenience of online communication, which is why The Yankee Group developed its own online database, called Yankee Net. Updated daily, the service contains market research information in the form of reports, newsletters and fast-breaking news items.

"Clients often need information instantaneously," she says. "Electronic information is faster than print and can be accessed immediately. It is just good business to make information available in this form."

— Cathryn Conroy

Witty advice for joblorn: *Pesmen*

Online Columnist Gives Career Advice

Move over, Ann Landers and Dear Abby. Make room for DR. JOB, CompuServe's electronic career advice columnist. DR. JOB offers online advice to the "joblorn." Users wondering what to do when a co-worker is uncooperative, a boss is unreasonable, or a career is unfulfilling can drop a quick electronic note to DR. JOB.

After consultation with experts in the appropriate fields, Sandra Pesmen, who also serves as features editor for *Crain's Chicago Business*, prepares the answers. The DR. JOB column, online since last December, "provides witty advice for the 'joblorn,' " says Marcia Haddox, CompuServe product marketing associate. Four work-related questions are featured online each week, while other questions are answered privately via EasyPlex. Pesmen says comments are selected for use online because they illustrate a common problem. "I don't choose the ones I am going to use. They choose me — they jump out," says Pesmen. "DR. JOB does not know everything, but she knows where to find out almost everything."

Through her job with *Crain's*, Pesmen has established a network of business contacts she uses as information sources. Finding and presenting such information has become second nature to Pesmen, who received her journalism degree from the University of Illinois. She has served as a features reporter for the *Chicago Daily News*, has taught journalism and feature writing at Northwestern University and has written a book on public relations. "I am a reporter and my job is to give people the information they need in a simple, interesting way," she explains.

After taking DR. JOB online, Pesmen observed that users' questions repeatedly focused on certain topics and noted the tremendous need for more detailed advice in these areas. She developed an additional "Career Tips" feature, a more in-depth weekly essay on a popular topic. Each tip is prepared by an expert in a particular field or by Pesmen's staff, then retained online for long-term reference.

Through existing "Career Tips," users can find advice on topics such as how to dress for a job interview, how to write a resume, how to select a career in the field of electronics, and how to differentiate between an executive recruiter and a headhunter.

DR. JOB has been popular since its first day online, receiving from five to 20 questions each day. The career advice, although serious, is provided with a flair. Pesmen recalls her favorite piece of advice: It went to a student whose father wanted him to be a doctor although he disliked science. The student inquired, "What is the best-paying field?" With tongue-in-cheek, Pesmen answered, "Crime," then proceeded to present serious advice about seeking career counseling.

Job-related advice is "all people talk about today," says Pesmen. "Most people are getting career savvy and the rest know they should be, Pesmen says. "I do not claim to be the Northwestern University Kellogg School of Business, but I can help until they get there."

— Kathy Baird

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Requirements: All required cables are provided.
Options: Supports external drive, hard disk and printer.
Model Tested: Smart-Cat PLUS installed in Apple Macintosh 512K with single-sided internal drive, 800K double-sided external drive and Apple ImageWriter printer.
Price: $499

Reviewed by Joe Farace

An external modem is a simple thing that simply sits under a telephone and chatters away. At least it should if given the required cables and controlling software. Novation's Cat Communication System for the Macintosh contains a Smart-Cat PLUS modem, all connecting cables needed and Mycroft Labs' Mite communications software.

After removing the Cat from its box and connecting it to my computer, I fired up my workaday copy of Mainstay's Telescape disk and was online with CompuServe within seconds. Telescape requires a Hayes-compatible modem, so it quickly verified this modem's compatibility with the widely accepted "AT" or "attention" command set popularized by Hayes. However, Smart-Cat PLUS also includes features reaching beyond simple Hayes compatibility.

This modem is slightly narrower than a standard desk telephone, so the phone's four rubber "feet" fit the modem but straddle it by about 1/16 inch. Nevertheless, the clean, contemporary design is pleasing.

The modem has a power switch and two LED indicators on the front. After switching on the modem, the "power" LED lights, and the Cat performs line and modem tests accompanied by a series of tones that sound almost musical. If the beeping is bothersome, the volume can be adjusted with a knob at the rear of the modem.

The "ready" indicator shows the modem's operating status. For instance, when a carrier signal hasn't been detected, it flashes (with equal on/off intervals) during dial-up. If you really want to know what all the flashes mean, the excellent manual tells all.

Eight DIP switches control such operating parameters as command recognition, verbal or numeric response codes, echoback, 300 or 1200 baud operation on incoming calls, handshaking signal recognition and automatic answering. For those who use modems only for sending, this unit conveniently arrives with the auto-answer turned off, keeping it from zapping voice callers with screeching tones.

The documentation is presented in a small loose-leaf binder, with the manual covering both the hardware and the Mite software. All the average user needs to know is contained in a 10-page Macintosh supplement and 12 pages in Chapter 2. Users interested in the technical side of telecommunicating will enjoy the remaining hardware portion of the manual, which includes schematics of the modem. Appendix D contains a quick reference guide that can be removed and kept next to the computer.

Mite is different. Since the software was designed for many different systems, including CP/M and MS-DOS, its section of the manual is generalized. Mite includes connect routines for CompuServe, Dow-Jones, The Source and many others, so those users can be online quickly. Users needing to access bulletin boards or other online services are advised to "hack" through the program's "Command" and "Help" windows, even if they're already familiar with telecommunications. All information needed is contained in the four windows. Users new to telecommunicating should use the manual only as a general guide; Mite is easier to use on a Mac than on other computers.

Mite has macro capabilities, and users lacking other communications software should be pleased with it for some time. Other software most likely will work with the Smart-Cat PLUS. Once I changed the speed to 1200 baud, MacTerminal worked without problems. However, Telescape demonstrated an occasional tendency to not recognize system disconnects.

There are some things I wish Novation had done differently. Instead of the "big thumb" connectors used for most Apple peripherals, Novation uses a connector similar to Apple's Modem 300 and 1200. It takes a screwdriver to connect and disconnect the modem cable. That is only part of the problem. The connector does not fit well, and it is easy to strip the soft, small bolt heads. However, the connector is out of sight at the back of the computer and damaged bolt heads don't affect operation. Still, the connector doesn't match the high quality evident in the rest of the package.

For people who have been using 300-baud modems, the difference in performance at 1200 baud will knock their socks off. The Novation Smart-Cat Plus package finally brings both high quality and high performance to a Macintosh.

Joe Farace is a writer and photographer from Denver. He is a contributing editor of PhotoMethods *magazine and his reviews of Macintosh software will appear in an upcoming book from Arrays Inc.*

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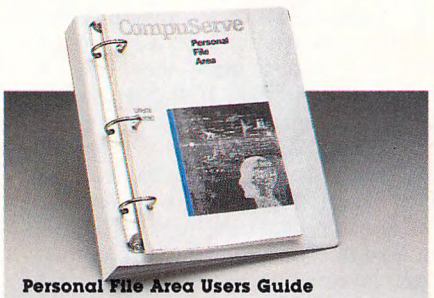

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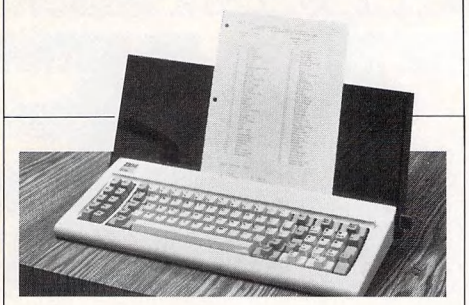

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Reviewed by James Moran

Dust is an enemy of computers, and a busy desktop generates more than its share of particle pollution. If you have not seen the color of your desktop for months, you might find Lintek Computer Accessories' combination dust cover and copy holder just the thing you need.

Mounted over the protruding angle adjustments of an IBM keyboard, the translucent cover keeps dust off and out of the unit by completely surrounding it. When flipped up, the cover becomes a copy holder. The unit is well-designed to fit the keyboard, and space has even been allowed for the cord that connects the keyboard to the computer's system unit.

When used as a copy holder, the cover flips up to a 95 degree angle, which is just about perfect for viewing any papers being transcribed or used as references. The only problem I found occurred when a single piece of paper was set into the copy holder. The spacing between the holder's ledge and the supporting keyboard was just wide enough to allow a single sheet to slip under the keyboard. Still, the unit is inexpensive, and its versatility makes it a good buy.

James Moran is vice president of Programming Service Corp., a Midwestern consulting and research firm. His CompuServe User ID number is 70007,2253.

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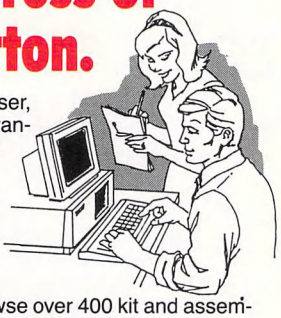

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P 560 XL ... 1125.00
P 660 ... 450.00
P 760 ... 625.00
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Microline 193 ... Call
PANASONIC
KXP-1091 ... 235.00
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SPRINT 11/40 IBM INTERFACE
SILVER REED
EXP 500P ... 180.00
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SG-15 (120 CPS) ... 369.00
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SR-15 (200 CPS) ... 579.00
NB-15 ... 990.00
TOSHIBA
321 PAR ... 445.00
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351 PAR Only ... 1015.00

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Grande Byte-AT w/128K ... 187.00
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Speed Demon PC ... 368.00
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Quadsprint ... 409.00

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TECMAR
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Monochrome Graphics Adaptor ... 123.00
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NEC
Multisync ... 520.00
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HX-9 Hi-Res RGB Color ... 384.00
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Crosstalk ... 91.50
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Relay ... 93.00
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AST
AST Reach Internal 1200 ... 310.00
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Chromograph ... 165.00
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Smartcat Plus 1200 Standalone ... Call
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2400 Standalone Modem ... 465.00
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Half-Card 2400 Hardware Only ... 417.00
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Promodem 1200 ... 265.00
Promodem 1200B Hardware Only ... 180.00
Promodem 1200B w/Software ... 205.00
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Password 1200 Baud ... 197.00
Courier 2400 Baud ... 385.00
VENTEL
2400 Half-Card w/Crossstalk XVI ... 445.00
1200 Plus External 300/1200 ... 305.00
PC Modei 1200 w/Crosstalk XVI ... 305.00
PC Modem ½ Card w/Xtalk ... 335.00
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PC 1200 w/Software ... 249.00
PC 1200 Hardware Only ... 222.00

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EVEREX
20MB Cassette Backup (Internal-MEMTEK) ... 575.00
20MB Cassette Backup (Internal-TEAC) ... 625.00
60MB Cartridge Backup (Internal) ... 835.00
60MB Cartridge Backup (External) ... 975.00
100MB Cartridge Backup (External) ... 995.00
IOMEGA
Bernoulli Box 10MB w/Centrl ... 1599.00
Bernoulli Box 10MB Plus w/Cntrl ... 1625.00
Bernoulli Box 2—10MB w/Cntrl ... 2199.00
Bernoulli Box 2—10MB Plus w/Cn ... 2249.00
IRWIN MAGNETICS
10MB Cartridge Backup (Internal) ... 425.00
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140MB Hard Drive for AT (Internal) ... 3400.00
MOUNTAIN COMPUTER
10MB Drivecard ... Call
20MB Drivecard ... Call
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40MB for AT (Internal) ... 1175.00
60MB for AT (Internal) ... 1350.00
RACORE
Drive Two for PC Jr. ... 355.00
Expansion Board for PC Jr. w/1 Seagate ... 145.00
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WANGTEK
60MB Cartridge Backup (Internal) ... 875.00

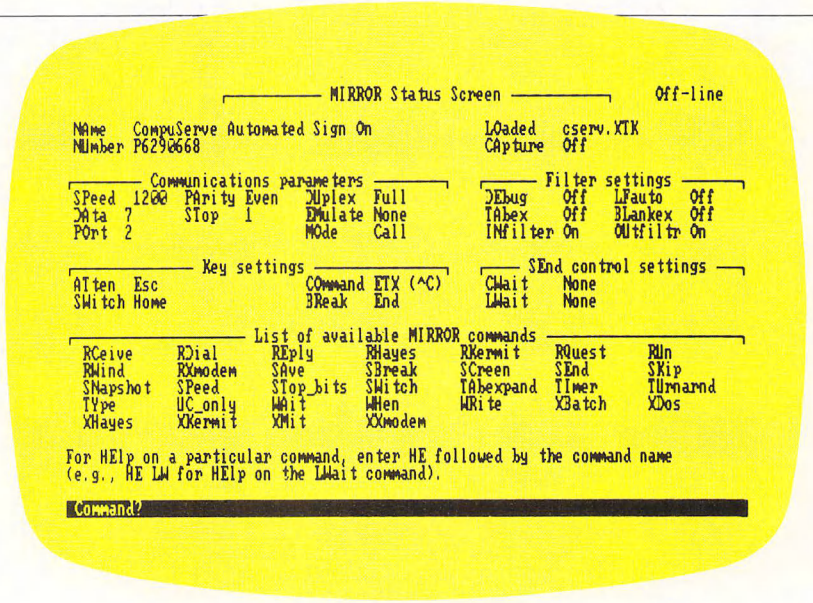
GO EBB or circle 15 on the Reader Service Form.

Mirror Data Communications Software

SoftKlone Distributing Corp.
1210 E. Park Ave.
Tallahassee, FL 32301
904/878-8564

Computers: IBM PC, PC-XT or compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires at least one double-sided diskette drive.
Copy Protection: None.
Required Peripherals: Modem (supports both Hayes-compatible and various other modem types).
Other Requirements: Minimum 192K RAM.
Optional Items: Printer.
System used for test: 640K IBM PC-XT with IBM black and white monitor, IBM monochrome display and printer adapter, two disk drives, Maynard 20MB hard disk, Okidata Microline 84 printer and Hayes Smartmodem 300; running PC-DOS 2.1.
List Price: $49.95

Reviewed by William J. Lynott


MIRROR Status Screen
Off-line
NAme CompuServe Automated Sign On
NUmber P6290668
LOaded cserv.KTK
CApture Off
Communications parameters
SPeed 1200 PArity Even DUplex Full
DAta 7 STop 1 EMulate None
POrt 2 MOde Call
Filter settings
DEbug Off LFauto Off
TAbex Off BLankex Off
INfilter On OUtfiltr On
Key settings
ATten Esc COmmand ETX (^C)
SWitch Home BReak End
SEnd control settings
CWait None
LWait None
List of available MIRROR commands
RCeive RDial REply RHayes RKermit RQuest RUn
RWind RXmodem SAve SBreak SCreen SEnd SKip
SNapshot SPeed STop_bits SWitch TAbexpand TImer TUrnarnd
TYpe UC_only WAit WHen WRite XBatch XDos
XHayes XKermit XMit XXmodem
For HElp on a particular command, enter HE followed by the command name
(e.g., HE LW for HElp on the LWait command).
Command?

As some wag once observed, "If it looks like a duck and quacks like a duck, I call it a duck." With apologies to the originator of that phrase, I'd say, "If it looks like Crosstalk XVI and works like Crosstalk XVI, don't be too quick to call it Crosstalk XVI."

The first thing you see on the screen when you run Mirror is a disclaimer. We have not copied either the source code or the object code of Crosstalk XVI, it points out. We have copied only the ideas behind the program. Well, I wouldn't know about the technicalities involved in that claim, but I do know that without the Mirror logo, I wouldn't have known I wasn't using Crosstalk XVI. Everything about the operation of Mirror, including menus, terminology and display screens, is identical to its better known forebear, as far as I was able to tell. Operations are so similar that a user could switch back and forth between the two programs with virtually no changes in procedure.

Of course, all this comes as no surprise. Mirror is openly advertised and sold as a "clone" of Crosstalk XVI but at a much lower price. Frankly, within the limitations of comparisons I was able to make during my review, I must agree with the advertising claim that Mirror supports 100 percent of the features found in Crosstalk.

Installation procedures are the same for both programs, even to the "newuser" and "setup" filenames used in the "getting started" section of the documentation. Ironically, the installation procedures and documentation for Mirror were easier to follow and understand than the somewhat weighty instructions in Crosstalk's manual. The only argument I have with Mirror's documentation is the sloppy preparation that required three separate sets of errata sheets for the version I received. Manually entering every correction would be a tedious chore.

Mirror supports a variety of modems and more transmission protocols than Crosstalk. The instructions for setting up the program for hardware configurations are as understandable as any I've seen. Once the program is installed, you may fully automate data communications through script files written with the built-in editor.

Instructions are written on two levels. By following the beginner's instructions, you can be using Mirror at a basic level within 30 minutes or so. Once you've mastered the basics, you can switch to advanced procedures, which include a long list of commands that are identical, for the most part, to those of Crosstalk XVI.

In what might be viewed by some as a case of adding insult to injury, Mirror claims several enhancements not found in the program it cloned. Among the most significant is Mirror's ability to operate in memory-resident background while you call up another application program. I tried this by setting up Mirror to transmit a file, switching it into "background" mode and calling up my word processor. The two functions worked simultaneously without a hitch.

Among other enhancements claimed are several additional protocols for file transfer and better emulation of some terminals. A feature I found especially handy is the ability to edit the command line when entering or revising long text strings.

Mirror has an integrated text editor. It uses the capture buffer as an edit buffer, permitting you to load external disk files for editing. This text editor, although limited, makes good use of the IBM function keys, including F1 as an interactive help key.

I'm not qualified to judge the propriety of closely cloning an existing product, but there's little room for doubt that Mirror lives up to its claims. It's an excellent communications program with power and flexibility beyond what you'd normally expect to find in its price range.

Editors Note: In separate tests by Online Today*'s reviews editor, Mirror proved partially incompatible with EGA video adapters. Attempting to reactivate Mirror after entering background operation scrambled the display and required rebooting. Failure to execute a "MODE CO80" command before using Mirror caused intermittently scrambled but recoverable screens on exiting the program. The developer is aware of the problem and is working to correct it as soon as possible.*

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.

GO EBB or circle 16 on the Reader Service Form.

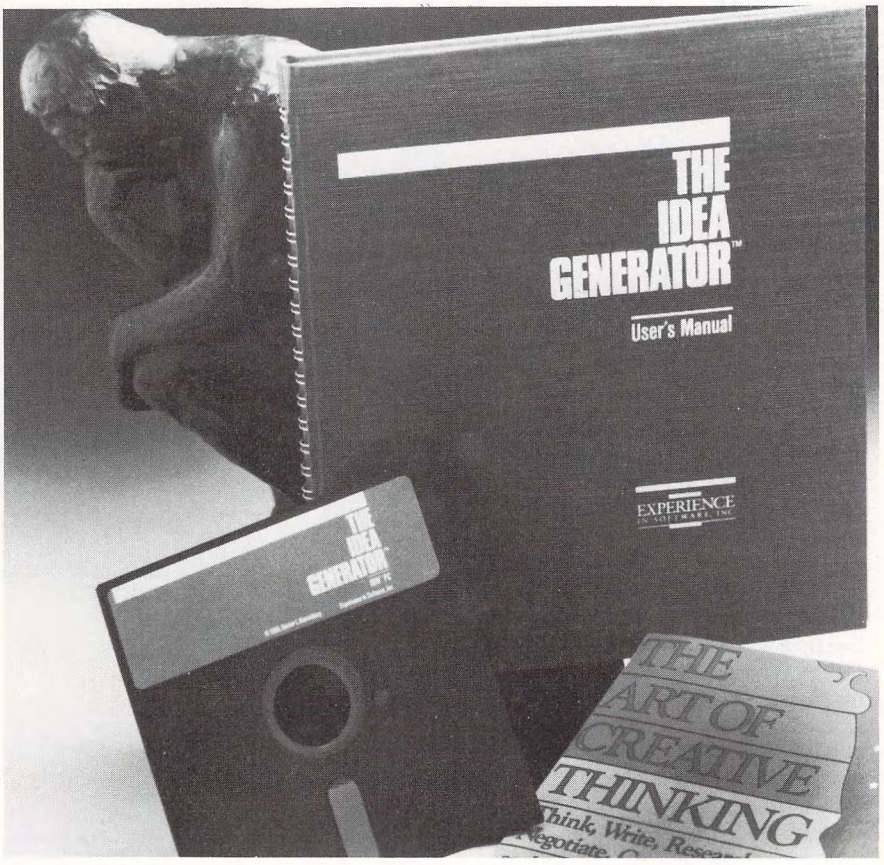
The Idea Generator

Provides Problem-Solving Tools

Experience In Software Inc.
2039 Shattuck Ave., #401
Berkeley, CA 94704
415/644-0694

Computers: IBM PC, PC-XT, PC-AT and compatibles.
Operating System: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires two diskette drives or one diskette drive and a hard disk.
Copy Protection: None.
Required Peripherals: None.
Other Requirements: Minimum 256K RAM.
Optional Items: Color monitor; printer.
System used for test: 640K IBM PC with two 360K double-sided diskette and monochrome monitor; running PC-DOS 2.1.
List Price: $195; demo disk available for $10.

Reviewed by Frank Jones



Gerald I. Nierenberg gained notoriety as the author of the best-selling book, *The Art of Negotiating*. He followed that with *The Art of Creative Thinking*, which he helped develop into an unusual software program called The Idea Generator. Because the program is unique, it cannot be described in a single sentence. Think of it as an automated psychologist, an invisible friend who seems to know the right questions to ask or simply as a tool to exercise the mind.

The Idea Generator is segmented into three sequential tasks. The first creates a problem statement. In this section, you are asked to describe the specific problem or situation that you wish to explore in the rest of the program. Then list all goals you hope to accomplish by resolving the situation. Finally, identify all people involved in the situation.

The second task, the "Idea Generation," encourages you to identify possible solutions to the basic problem statement. Here, the program prompts you with a range of questions that help you draw analogies to the situation at hand. These analogies (perhaps "metaphors" is a better word) enable you to separate yourself from the real problem and analyze a similar problem without being emotionally involved. This gives you a better understanding of how to deal with the real-world problem.

The third and final task is evaluation, in which you assess your work by rating your ideas in terms of meeting the goals you defined, or in terms of costs, benefits and effects on others.

There is more to the program, but limited space prevents greater detail. The main thing to understand about The Idea Generator is that it does not give you guidelines, advice or answers to any problems. It does not contain any special wisdom or artificial intelligence. What it does, however, is help you create a surprisingly detailed scenario by which many problems may be properly evaluated and effectively handled. More important, The Idea Generator forces you to think creatively, yet logically, about ways to deal with problems.

I tested The Idea Generator using a real-world marketing problem my company faced. Because of the problem's complexity, I considered it the ultimate challenge for the program.

I completed The Idea Generator's three tasks in about two hours. Unfortunately, I could not identify a viable solution to the problem. Perhaps the problem was too complex, or maybe I didn't spend enough time on each task. However, despite my inability to come up with the perfect solution, I gained a better perspective on what the problem was, and who and what factors were keys to solving it. Perhaps that in itself was something of a solution.

Clearly, one shortcoming of this program is that it is confined to one set of preprogrammed questions. Consequently, while the questions are general enough to be applicable to most problems, they are not specific enough to be truly useful in solving certain problems.

The documentation accompanying The Idea Generator is clear and well-written. The company even includes a copy of *The Art of Creative Thinking* to help get the most from the program. Moving through the program with the keyboard is easy; there are only a handful of commands you need to know.

The Idea Generator is difficult to evaluate strictly as a computer program. It is probably more appropriate to compare it to a management consultant who gets paid $200 an hour to ask the same types of questions. For those who fancy themselves as creative managers, this program definitely is worth a closer look, and prospective buyers wanting to preview its capabilities and assess its possible applications can obtain a demonstration diskette for just $10.

GO EBB or circle 17 on the Reader Service Form.

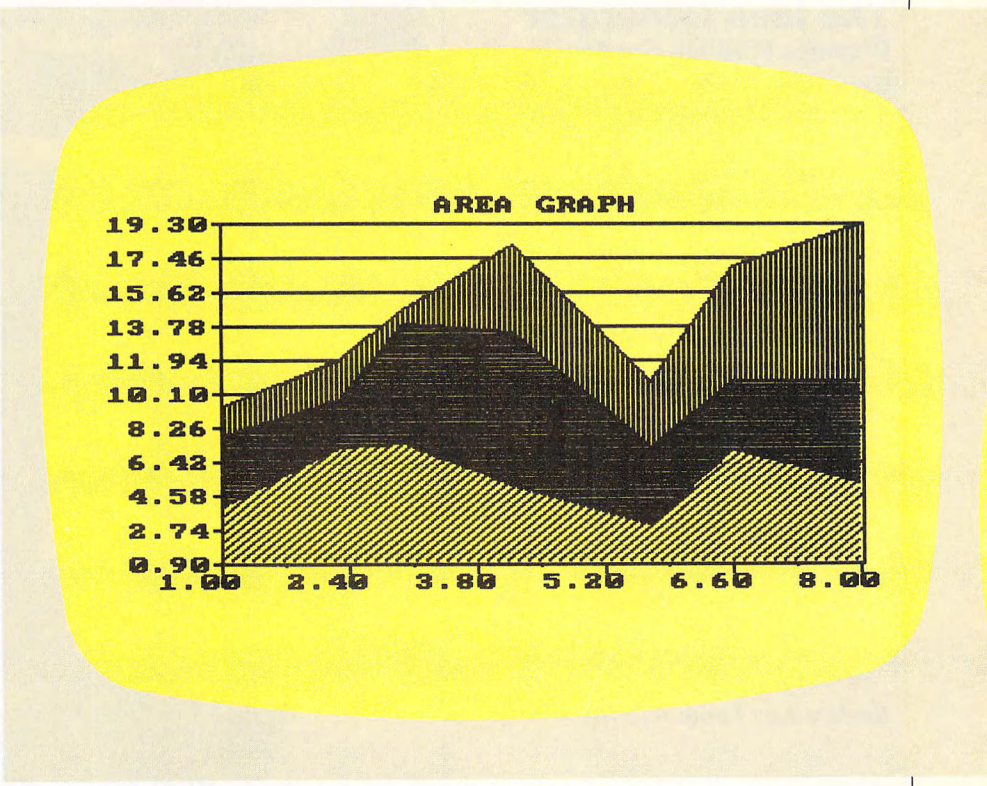
Guru 1.0

All The Software You'll Ever Need

Micro Data Base Systems Inc.
660 N. 36th St.
Layfayette, IN 47905
317/447-1122

Computers: IBM PC-XT, PC-AT and compatibles; multi-user versions available for many local area networks and the DEC VAX-11.
Operating Systems: PC-DOS and MS-DOS 2.0 and later; ULTRIX-32.
Media: Program supplied on five diskettes; hard disk is required.
Copy Protection: None.
Other Requirements: Minimum 512K RAM (640K highly recommended); 5MB of hard disk of hard disk storage space required.
Optional Items: Color monitor, graphics printer and/or plotter, and mouse are recommended but not required.
System used for test: 704K Heathkit 150 PC computer with high-resolution color monitor, two double-sided floppy drives, 20MB internal hard disk, Radio Shack DMP-2100P dot-matrix printer and 128K Microfazer printer buffer.
List Price: $2,995

Reviewed by Hardin Brothers



Guru is impressive, almost awe inspiring. Its power, size and price put it in a category almost by itself.

Guru combines nearly every type of software used in a modern office: a relational database system, a spreadsheet, a word processor, a communications program, a report generator, a business graphics and charting program, data encryption and password security, a natural-language inquiry system, a calculator and, most important, an expert system artificial intelligence program. Added to all that are a procedural programming language, mouse handling, complete program control over input forms and several ways of working with the expert system module.

Unlike some integrated programs that seem collections of unrelated modules, Guru's modules are tightly interrelated. For example, you can use the spreadsheet to display information from the database, use either as input for the expert system, or use the database, graphing program and word processor to create form letters with graphics. Most Guru modules can work with data created by other modules; no part of Guru gives the impression of being tacked onto add another feature.

Much of Guru comes directly from Micro Data Base Systems' earlier product, KnowledgeMan. The most important new feature in Guru is its expert system. To use it, you first create a set of rules that define a decision-making process. Guru uses your rules to reach a conclusion. Along the way, Guru will ask for any additional needed information. You can tell Guru how certain you are of each piece of data; it is capable of drawing valid conclusions even though data cannot be expressed with absolute certainty.

The expert system has two fundamentally different ways of working and deciding which rules to apply to any situation. You can direct it to work either forward to determine the logical outcome of a set of rules and data or backward to investigate a specific possible outcome. Inside each method are several options that govern Guru's handling of uncertain variables and how hard it works to reach a definitive answer.

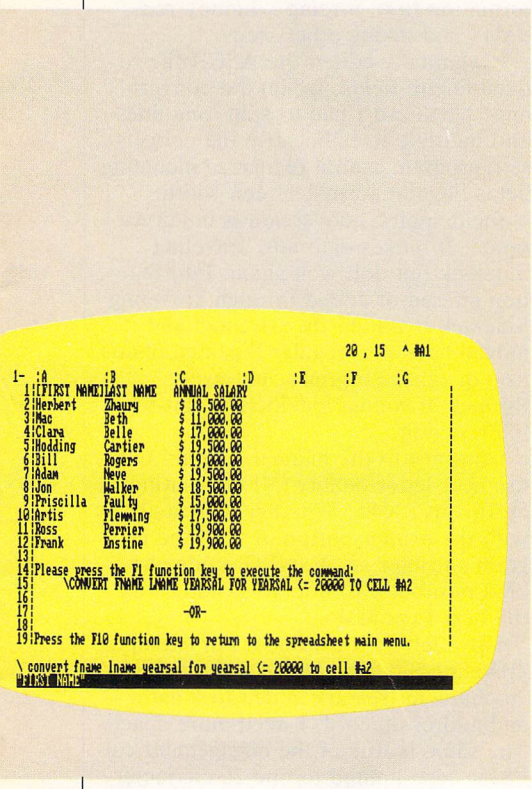
At any time, you can ask Guru to explain its reasoning processes or why it needs certain information. Being able to follow Guru's operations is helpful both for debugging a set of rules and for verifying the conclusions Guru reaches.

A special editor in Guru makes writing a set of rules particularly easy. Unfortunately, it cannot simplify the complex thought processes you must go through to determine the rules. However, once you've done so, Guru leads you through the process of entering and verifying them.

Besides the expert system, Guru has all the features of KnowledgeMan, which is still among the best relational databases available for any microcomputer. As I said when reviewing KnowledgeMan and KnowledgeMan/2 for *Online Today* (September 1985 print edition and April 1986 electronic edition), I think the word processor module is weaker than the rest of the package. It is more than adequate for writing custom programs in Guru's procedural language but lacks some features like on-screen paragraph reformatting that most users expect in a word processor.

Guru's procedural language has been improved somewhat since the last version of KnowledgeMan. With it, you can write programs that can invoke all other Guru modules, including the expert system. While many users will find the programming language too complex, anyone familiar with a structured programming language like Pascal or C will have little trouble creating complex and powerful programs for Guru. Several program examples are included with Guru, both in its documentation and on disk.

Two modules in Guru are available as



```
                                                    20 , 15   ^ #A1
1-  :A          :B          :C          :D      :E      :F      :G
 1 :[FIRST NAME][LAST NAME  ANNUAL SALARY
 2 :Herbert      Zhaury      $ 18,500.00
 3 :Mac          Beth        $ 11,000.00
 4 :Clara        Belle       $ 17,000.00
 5 :Hodding      Cartier     $ 19,500.00
 6 :Bill         Rogers      $ 19,000.00
 7 :Adam         Neve        $ 19,500.00
 8 :Jon          Walker      $ 18,500.00
 9 :Priscilla    Faulty      $ 15,000.00
10 :Artis        Flemming    $ 17,500.00
11 :Ross         Perrier     $ 19,900.00
12 :Frank        Enstine     $ 19,900.00
13 :
14 :Please press the F1 function key to execute the command:
15 :     \CONVERT FNAME LNAME YEARSAL FOR YEARSAL (= 20000 TO CELL #A2
16 :
17 :                        -OR-
18 :
19 :Press the F10 function key to return to the spreadsheet main menu.

\ convert fname lname yearsal for yearsal (= 20000 to cell #a2
#A1:A1 [NAME]
```

KnowledgeMan options, but I hadn't seen them before. The first is a "chat" mode that lets the user ask Guru questions in "natural language" about any databases. The chat module learns while you use it, so if you misspell a word, Guru suggests one or more words that you may have meant. If you use a word Guru does not understand, you are asked for a synonym and then allowed, if you wish, to add the new word to Guru's dictionary.

Guru's communications module seems intended more for file transfers than for using online services like CompuServe. I had no trouble, however, getting it to log onto CompuServe or using its terminal mode while online. The communications module features both XMODEM and Kermit file-transfer protocols and supports all features of most "smart" modems.

Perhaps the only drawback to Guru is its size. It requires at least 512K of RAM, but some features such as its extensive help menus may be available only if you have 640K. And it requires a hard disk. The documentation says Guru needs at least a full megabyte of hard-disk space, but it really needs five megabytes allocated to it to use the program productively.

The documentation matches the size of the program. It is supplied in four large notebooks. However, much of the material is aimed at programmers and those who want to use Guru in its command mode. If you stay in Guru's menu mode, you probably will need only to follow the examples in the introductory pamphlet and augment your understanding with Guru's many help screens.

As a whole, this is a very impressive package. I found a few bugs in the demonstration programs but none in Guru itself. Many businesses could easily justify Guru's cost because they may never need to buy any other software except, perhaps, a word processor.

Hardin Brothers is an associate editor of 80 Micro *and a frequent contributor to several other magazines. He is also forum administrator of CompuServe's Writers' and Editors' Special Interest Group (GO WESIG).*

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Traveling Sidekick

Manages Days And Contacts

Borland International Inc.
4585 Scotts Valley Dr.
Scotts Valley, CA 95066
408/438-8400

Computers: IBM PC, PC-XT, PC-AT, PCjr and compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires at least one double-sided diskette drive.
Copy Protection: None.
Required Peripherals: Color or monochrome monitor; printer support includes Epson FX-80 and FX-85, IBM Proprinter and printers emulating its character set, and generic printers (Epson MX-series printers are treated as generic printers).
Other Requirements: Minimum 128K RAM recommended.
Optional Items: Additional diskette drives or hard disk; Borland's memory-resident Sidekick program; word processor or text editor generating ASCII files.
System used for test: 640K Compaq Deskpro Model 2 with two diskette drives, 20MB IOMEGA Alpha-10 Cartridge Drive Subsystem (Bernoulli Box), Amdek Color 722 RGB monitor driven by STB Systems' EGA Plus video adapter, Epson FX-85 printer; running IBM PC-DOS 2.10.
List Prices: $69.95 for Traveling Sidekick alone; $125 for Traveling Sidekick and memory-resident Sidekick; $29.95 for six-month supply of organizer refill forms.

Reviewed by Ernest E. Mau

Everybody tries to organize my life and business these days. I now have a dozen computerized and non-computerized organizers, with the latest being Traveling Sidekick (version 1.00A).

The Traveling Sidekick name is something of a misnomer and implies more relationship than really exists between it and Borland's famed memory-resident Sidekick. Aside from being able to convert Sidekick phone lists or use Sidekick calendar files, Traveling Sidekick is a stand-alone package. It has everything needed to enter, manage and output name-and-address lists, phone directories and engagement calendars without the memory-resident Sidekick system. Thus, the original Sidekick need not be used at all. Since Traveling Sidekick is not memory resident, there is no danger of incompatibility with other applications.

Traveling Sidekick provides a loose-leaf organizer, software, a pen and a solar-powered credit-card style calculator. The binder contains preprinted forms and index dividers that organize pages into "pending," "calendar," "financial," "information," "miscellaneous" and alphabetically indexed "addresses." It has an extra pad of general-purpose forms, an order blank for refills, the software manual, preprinted calendars, reference sheets for Borland products, an ASCII table, a map of the United States, a time-zone map of the world and charts of dialing codes, monetary units and metric conversions.

The software manages addresses and engagements, printing resulting files or selected and sorted portions on 8½- by 11-inch pages that are folded, punched with three holes and inserted into the organizer binder. From the name-and-address file, it prints alphabetized phone lists and complete address books for the binder or straightforward mailing labels. From the engagements file, it prints a quick list or daily, weekly, monthly and yearly calendars for the binder.

The user can print pertinent information, place the sheets in the binder and go on the road without a computer. While away, new information can be recorded on blank forms for later transcription into the program when the computer is available. A nice idea!

No software installation is required other than making a working copy on a floppy or hard disk. If changes to the screen type or displayed colors are needed, a simple auxiliary program handles them.

Although the main program ran smoothly for entering, sorting and selecting information, problems appeared in other areas. Not unexpected in first-release software.

My biggest headache came from the conversion program that must be used when moving data into Traveling Sidekick from regular Sidekick phone lists or ASCII files output by other programs. I used data from an address book program that output supposedly acceptable comma-delimited ASCII files. A dozen tries and hours later, I had not gotten the conversion program to import that data automatically without truncating fields or doing other damage, even after scrupulously following directions about editing the ASCII file to put the longest record with the most information first, forcing "dummy records" and taking other steps.

I eventually edited the ASCII file to fixed-length fields, which did convert once I realized I had to split long lines into multiple lines because the conversion program cannot recognize incoming fields beyond normal screen width.

Incidentally, conversion is unidirectional. It moves data into Traveling Sidekick but not back again. Information altered or added through Traveling Sidekick is not easily extracted and moved back into regular Sidekick phone lists or other programs, not even through Traveling Sidekick's print-to-file function.

Contrary to the manual, I could not use near-letter-quality (NLQ) printing on an Epson FX-85. Whether activated with the printer button or with the program's printer setup, NLQ mode garbled printouts, so double-striking was the best I could do.

I also felt a bit confined. For example, Traveling Sidekick allows only a single 26-character remark added to a name-and-address record. I need more space. The same is true of the engagement calendar, also limited to one 26-character comment. Furthermore, daily appointments must be from 8:00 a.m. to 8:30 p.m. and do not cover my working day that extends from 5:00 a.m. to 11:30 p.m. Being in the Mountain time zone, I must track calls and other business before 8:00 a.m. for East Coast clients and after 9:00 p.m. for some West Coast contacts.

Traveling Sidekick can be useful and is an interesting concept, especially when a user's style fits its style. The low cost is particularly attractive. I just wish it was a little more forgiving of individual schedules and needs.

Ernest E. Mau, a full-time free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 300 articles on microcomputer products and applications.*

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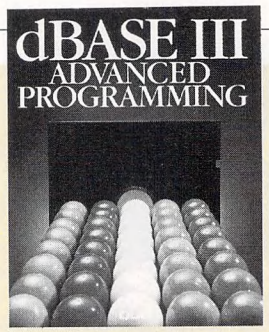
dBase III
Advanced Programming

By Joseph-David Carrabis
Que Corp., 1985
249 pages, $19.95 (softcover)
Reviewed by Harry Green



Unlike most PC-related books on the market, *dBase III* is clearly aimed at the professional.

For many of us, much of the power of dBase III remains untapped because we haven't learned to use its procedural language effectively. This book is a collection of programming hints that will help you to enhance your dBase III programs. As the title implies, it is not a book for neophytes; Carrabis does not bother with detailed explanations, but assumes the reader brings the necessary background to the book.

If you know a high-level language such as BASIC or Pascal, you'll profit from the first few chapters in which Carrabis invites you to unlearn your most cherished programming skills. He advises you to avoid such flourishes as comment lines and indentation because they slow execution speed. He does not suggest you shun internal documentation altogether, but recommends you leave it in the master copy and delete it in the run copy of the program.

A substantial part of the book is devoted to features that increase the efficiency of dBase III. He advises the use of modular code in the form of procedures for frequently called subroutines. We are reminded to set file and buffer size by using the CONFIG.SYS routine of DOS, and to use RAM disks to increase processing speed. He instructs on the use of external programs including calls to DOS routines for such functions as saving files.

The book is sprinkled liberally with sample routines that can be incorporated with modification in your own programs. For example, code is provided for building menus, encrypting files, merging files with WordStar and addressing labels and envelopes. He describes methods for weeding out duplicate records and devotes a chapter to commands that are often overlooked. Two such commands are PEEK and POKE, analogous to similar BASIC commands. Carrabis offers hints for using these for functions such as hiding files and verifying the amount of vacant disk space before issuing a file command.

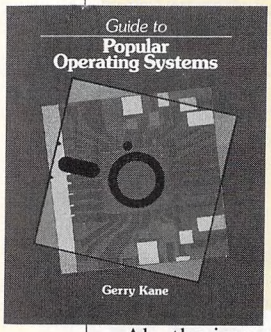
The last part of the book is concerned with writing user-oriented applications. Carrabis instructs us on the use of several features such as auto-executive and batch files that hardly seem necessary to mention to advanced programmers, but perhaps some programmers do overlook the benefits operators gain from these features. Other features such as help screens and user-defined function keys should help all programmers develop a package that inexperienced operators won't find intimidating.

Unlike most PC-related books on the market, this book is clearly aimed at the professional. Beginners or occasional users of dBase III will be writing programs that are too limited to gain a great deal of value from this book. To give you an idea about the difference between Carrabis and the rest of us, he says that his dBase III programs average between 10,000 and 30,000 lines of code. With programs this extensive, the fine tuning he describes in this book can pay dividends. If you're up to this skill level, the book is well worth considering.

Harry Green is president of Pacific Netcom Inc., a Portland, Ore., firm that consults with businesses on using office automation and telecommunications to improve productivity. His CompuServe User ID number is 70007,431.

Guide to Popular Operating Systems

By Gerry Kane
Scott, Foresman and Co., 1986
190 pages, $19.95 (softcover)
Reviewed by James Moran



***Guide to Popular Operating Systems* would be most useful to those who occasionally find themselves in front of a computer with an unfamiliar operating system.**

Ah, the joys of computer operating systems. Remember when you sat down in front of your first computer? After hours (days?) of figuring out switches, connectors and equipment ports, you finally powered up your new technological wonder only to be confronted by some unfathomable message or puzzling symbol on the CRT. It probably took more than a few weeks before you were comfortable with your computer's operating system and surely you felt that the worst was over.

It was if you kept the same computer. But if you found yourself in the enviable position of being able to afford a new whiz-bang model XX, state-of-the-art computer, you soon found yourself face to monitor with a new operating system that had nothing in common with the old one, other than that it needed a computer on which to run. *Guide to Popular Operating Systems* can take some of the horror out of that discovery.

The stated purpose of the book is to contrast the file systems and the commands available for day-to-day operations with various operating systems. In order to standardize such comparisons, the author defines an imaginary generic operating system and uses it as the benchmark. Major operating systems compared in the book include Apple-DOS, Apple ProDOS, CP/M, PC-DOS/MS-DOS, p-System and UNIX.

Each operating system is discussed in a separate chapter. A typical chapter includes a brief overview of the system, a discussion of specific terminology, and a review of functions, file systems and some commonly used commands. Since an average of only 20 pages is spent on each operating system, discussions are not comprehensive.

If you need a light introduction to some of the more popular operating systems, this book may meet your needs. I didn't see any factual errors in any of the chapter discussions, and the material is presented clearly. Although less than 5 percent of any operating system's commands are explored, the few that are chosen are sufficiently powerful to get new users up and running, albeit tentatively.

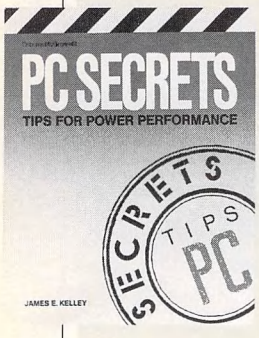
Guide to Popular Operating Systems would be most useful to those who occasionally find themselves in front of a computer with an unfamiliar operating system.

James Moran is a free-lance writer and frequent contributor to Online Today. *His CompuServe User ID number is 70007,2253.*

PC Secrets:
Tips for Power Performance

By James E. Kelley
Osborne/McGraw-Hill, 1986
224 pages, $16.95 (softcover)
Reviewed by Robert Sanchez

James Kelley lets us peek into his file folders, brimming with ideas to help you get the most out of your IBM PC. His book is a potpourri of "secrets," a few of which you may find old hat, but many more of which you may find both interesting and useful. You may yawn at the prospect of entering an assembly language program that checks the copyright date on your PC's ROM chip, but you may appreciate the advice on handling recalcitrant printers. And in case you have never copied and run an assembly language program before, Kelley's instructions in Chapter 1 are easy to understand.



If you want to get the most out of your IBM PC without having to enroll in a computer science course, then read and enjoy *PC Secrets*.

Written principally for the non-expert, *PC Secrets* does assume at least a nodding acquaintance with the IBM PC or PC-XT and with PC-DOS. It also assumes you have IBM's BASIC, including Advanced BASIC, and PC-DOS 2.0 or later with at least the DEBUG program.

Kelley's bag of "slick tricks" includes tips you might need only once — but when you need them, they can be lifesavers. For example, what if you are in the middle of a project, and a key on your keyboard stops functioning? Chapter 2, "Making the Hardware Work," offers a temporary fix that lets you finish your job before you trundle your PC off to the repair shop.

This is not the type of book you are likely to read from cover to cover. It is not designed that way. With the exception of reading Chapter 1 first, you can read the chapters independently of one another. If you want to learn how to add more memory, for example, then go directly to Chapter 7, "Inside Jobs." Along with specifics about buying, handling and inserting memory chips, you will pick up valuable common-sense advice, such as how to diagram the original settings of the internal switches before changing them, as well as how to use a ball-point pen to actually move them. Suggestions like that can easily justify your investment in Kelley's book.

But Kelley goes further, offering tips to enhance the value of your WordStar or Lotus 1-2-3 program, simple ways to tame your printer, enhance your screen displays, mine some of the treasures in PC-DOS and much more. And just as important, he writes clearly and well.

If you want to get the most out of your IBM PC without having to enroll in a computer science course, then read and enjoy *PC Secrets*.

The Software Encyclopedia 1985/86

R.R. Bowker Co., 1985
2,084 pages (2 volumes), $95 (hardcover)
Reviewed by William J. Lynott

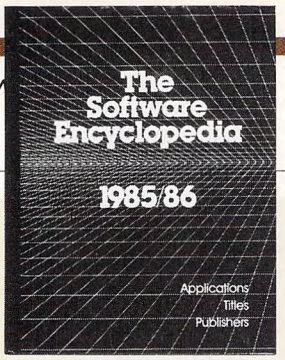
Imagine setting out to prepare a catalog that would list every book currently in print. Imagine further that the project would be executed so thoroughly and dependably that your new catalog would be adopted universally as the definitive reference source by libraries, researchers, students and scholars everywhere.

Well, that's exactly what the R.R. Bowker Co. did many years ago. The result, *Books In Print*, speaks for itself. This annual reference can be found in every major library in the United States.

Now, the Bowker Co. has set out to provide the same type of reference for the computer software industry. Whether it will generate the same respect as its forerunner remains to be seen; my guess is that it will.

The Software Encyclopedia is a massive, two-volume set that catalogs software available from about 3,000 publishers. In what must have been a truly formidable task, this mountain of information has been arranged in a carefully engineered format similar to the indexing used in *Books In Print*.

First, four major headings — business/professional, consumer, educational and utilities — are subdivided into 830 specific application categories. If you are interested in accounting programs, for example, you will find this



A major work destined for public and industrial libraries.

category listed under Business/ Professional, broken down into 21 specific applications such as general ledger, tax preparation and job cost accounting. This information is called "The Guide to Applications" and appears at the beginning of each of the two volumes.

Next in Volume 1 is the Applications Index. This identifies specific software under the 830 categories shown in "The Guide to Applications." Each entry provides the title and publisher's name.

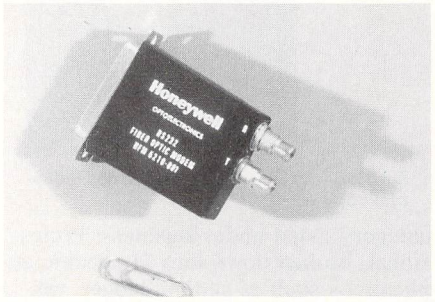
The most complete information for each listing appears next in Volume 1 in what is called the Title Index. This section lists programs alphabetically by title. Each entry includes title, volume number, number of disks, version, series and author. Also included is a listing of compatible hardware, operating systems, memory requirements, publisher's name and price. Since this is a reference text, there is no attempt to provide subjective reviews; however, each entry ends with a brief descriptive annotation. For example, the listing for Lotus 1-2-3 ends with this description: "Analytical tool which includes information management, spreadsheet and graphics with limited text processing."

The final section in Volume 1 is the Publishers Index, which includes name, address, telephone number and other information needed for ordering from the publishers whose products are listed in the encyclopedia.

Volume 2 holds the Expanded Applications Index. This section provides the same information as that shown in the Title Index except that it is arranged by specific application.

Curiously, the editors of this project have chosen to list word processing in the Consumer Application category along with hobbies and games. In my view, word processing is an activity that clearly belongs in the Business/Professional category. Aside from such minor criticisms, I find *The Software Encyclopedia* to be a major work destined to become an important reference text for public and industrial libraries.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.



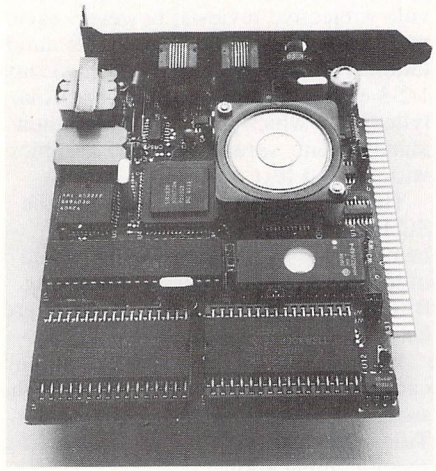
Fast as Lightning

Anchor Automation has introduced the Signalman Lightning, a 2400 bps, auto-dial, add-in board modem for the entire IBM PC family and compatible computers.

Selling for $499, the half-card modem features auto-dial, auto-answer, asynchronous operation and comes bundled with Lync communication software. It uses the Hayes-compatible modem command structure, allowing either attended or manual data transmission.

For information, contact Anchor Automation Inc., 6913 Valjean Ave., Van Nuys, CA 91406.

GO EBB or circle 22 on the Reader Service Form.



Novation 2400 Half-Card Modem

Novation Inc. has released a new 2400 half-card modem for the IBM PC, PC-XT, PC-AT and compatible computers.

Retailing for $595, the P2400HC uses surface mount technology and provides V.22 *bis* compatibility with just a half-card slot. The unit comes bundled with Mite communications software.

For information, contact Novation Inc., 20409 Prairie St., Chatsworth, CA 91311; 213/996-5060.

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Datalink 4800 Modem

The Datalink 4800 Modem from Penril DataComm is a versatile modem that offers data speeds of 4800 and 2400 bps and both Bell 208 A/B and CCITT V.27 *bis* /ter compatibility at both half- and full-duplex.

The modem incorporates a two-line, 32-character LCD and six front panel pushbuttons, allowing the modem to be fully configured from the front panel. Options are stored in non-volatile memory.

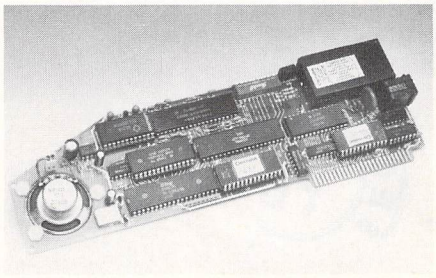
For information, contact Penril DataComm, 207 Perry Parkway, Gaithersburg, MD 20877-2197; 301/921-8600.

GO EBB or circle 24 on the Reader Service Form.

AppleMate 1200 Upgrade

Cermetek Microelectronics Inc. has upgraded its AppleMate 1200 Modem to operate with a variety of new communications software programs, including Apple Access, PFS Access, Modem Magician and Easy Come/Easy Go.

The unit is a compact, single-card modem for use with the Apple IIe and Apple II Plus computers. It operates at speeds of 1200, 300 or 110 bps in either full- or half-duplex. Features of the $295 modem include auto-dial, auto-answer, auto-speed adaptation, electronic call progress tone detection and built-in test diagnostics.



For information, contact Cermetek Microelectronics Inc., 1308 Borregas Ave., P.O. Box 3565, Sunnyvale, CA 94088-3565; 408/752-5000.

GO EBB or circle 25 on the Reader Service Form.

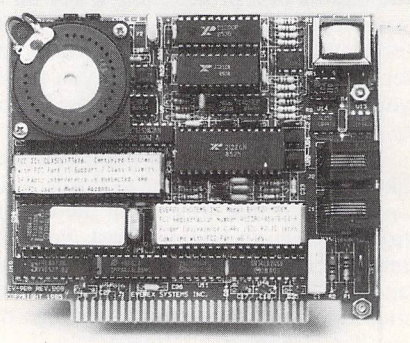
Everex Half-Card Modem

Everex Systems Inc. has introduced a 300/1200-baud modem on a half-size card designed to fit the short slots in the IBM PC-XT, Portable and compatible microcomputers.

Called the Evercom, the modem is Hayes compatible and offers such features as call progress monitoring, voice and data communications with automatic transition, audio and data telephone line monitoring, half- and full-duplex data transmission and a built-in loudspeaker. Retail price is $249.

For information, contact Everex Systems Inc., 47777 Warm Springs Blvd., Fremont, CA 94539; 415/498-1111.

GO EBB or circle 26 on the Reader Service Form.



VTerm III Communications

VTerm III from Coefficient Systems Corp. is an integrated software package for communications between IBM PCs or PC-compatibles and DEC, VAX and PDP-11 computers.

VTerm III combines VT100 terminal emulation, Kermit and multi-protocol file transfer and asynchronous communications capability up to 19200 baud in one software package. It provides extensive capabilities for the transfer of text and binary files with or without error correction and under local or host control. Retail price is $195. VTerm II users can upgrade for $70.

For information, contact Coefficient Systems Corp., 611 Broadway, New York, NY 10012; 212/777-6707.

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Microsoft Access Enhanced

Microsoft Access, Version 1.01, is a new version of Microsoft Corp.'s business information access program for electronic communications.

Features of the software, which is compatible with the IBM PC, PC-XT and PC-AT, include updated custom menus, a new installation program for hard disks, speed enhancements and non-copy-protected disks. One enhancement allows users to make reservations and purchase airline tickets while using the Official Airline Guide Electronic Edition (GO OAG) on CompuServe. Retail price is $250. The upgrade is offered free to all Microsoft Access owners.

For information, contact Microsoft Corp., Customer Service Department, 10700 Northup Way, Box 97200, Bellevue, WA 98009; 206/828-8080.

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ONLINE TODAY

Multi-Tech Half-Card Modem

Multi-Tech Systems Inc. has introduced a half-card 1200/300 bps modem called the MultiModemPC3. Retailing for $299, the unit operates in all half- or full-length board slots in IBM PC, PC-XT, PC-AT and compatible computers.

It comes as a complete communications system, including the modem hardware, MultiComPC communications software and phone cable. Features of the asynchronous modem include operation at 0 to 300 and 1200 bps, Hayes AT command set compatibility, auto-dial and auto-answer, two phone jacks, built-in speaker and full- or half-duplex operation.

For information, contact Multi-Tech Systems Inc., 82 Second Ave., New Brighton, MN 55112; 800/328-9717 or 612/631-3550.

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Modem Sharing

Hayes Microcomputer Products Inc. has introduced Smartcom II for the PC Network, communications software that provides IBM PCs on an IBM PC Network with the ability to share modems and asynchronous communications ports with all the functions Smartcom II currently provides for single user PCs.

Features include the ability to transfer files, connect to information databases and emulate a dial-up asynchronous terminal to minicomputers or mainframes. Retail price is $599.

For information, contact Hayes Microcomputer Products Inc., P.O. Box 105203, Atlanta, GA 30348; 404/449-8791.

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Fiber-Optic Modem

Honeywell has introduced a fiber-optic, RS-232-compatible asynchronous data modem.

The new HFM-5210 is a compact, secure, emission-free device that can link any personal computer to peripheral or mainframe or connect dumb or smart terminals to a mainframe. It measures 2.75 inches long by 2.25 inches wide by 0.7 inches thick, just slightly larger than the standard RS-232 connector. Features include low power loss, immunity to interference and a high operating speed. It retails for $96.10.

For information, contact Honeywell Inc., Optoelectronics Division, 830 E. Arapaho Rd., Richardson, TX 75081; 800/FOR-OPTO or 612/870-2207.

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Encrypted Modem

Western DataCom has introduced a 2400/1200/300 bps, full-duplex, triple-encrypted modem called MESA (Modem with Error control, Security and Auto-connection).

By inserting a key into the lock and turning it clockwise, 350 hexidecimal digits are read from the key by MESA. These 350 digits contain all of the information needed by MESA to dial the correct phone number, authenticate the user and keep data error-free and safe from interception. The modem sells for $995.

For information, contact Western DataCom, 5083 Market St., Youngstown, OH 44512; 216/788-6583.

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August issue, not valid after November 1986.

On the Freedom to Interact

As I write these words, I am in a hotel room overlooking Washington, D.C., where I will be for several days on business. But all the time I am here, I will continue my work as normal (or, at least, what passes for normal for a free-lance writer).

That is because I have brought along on my trip a portable computer with which I can stay in touch with online sources, just as if I were back in my office. From my room, I can check in with the national wire services and online newsletters, looking for computer news for the readers of the daily electronic edition of this magazine. Through electronic mail, I can stay in touch with editors and fellow writers on CompuServe and other systems. I can even dial into my office system hundreds of miles away if I need to pick up a background file on a disk there.

All of this has led me to the attitude that any line on which I hang my modem is The Office.

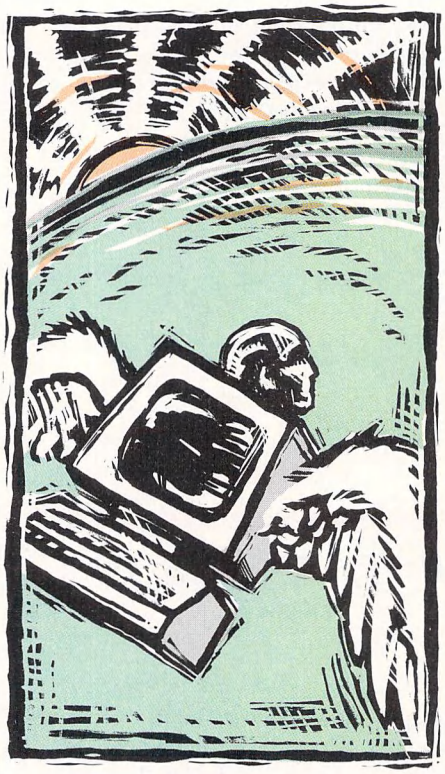
Now, I am sure there are those who believe there is little need for *more* freedom for free-lance writers. Actually, computers — particularly communicating computers — have implications for all kinds of workers, not just free-lancers. As the costs of maintaining business offices increase and the nature of the work itself continues to evolve, many employers will consider setting up part-time or full-time work-from-home bureaus.

In light of that, I thought it might be helpful to hear the impressions of some of us who have been working in the floating office that is online — the good and the not-so-enchanting things.

For starters, working with online computers has made me a more productive writer. There are fewer large chunks of unusable time in my life. It used to be that the hours spent waiting (in doctors' offices, airports and outer offices) were throw-away time. Now I whip out a battery-powered laptop for some writing. When I am back home — or just near a telephone — I can upload copy wherever it needs to go.

It also has made me a faster writer. Recently, I was on the team *Online Today* sent to cover the Comdex computer show in Atlanta. I often typed my notes directly into a laptop machine, converted the notes into a story on the same machine, and then uploaded it to a storage area online where an OLT editor could pick it up. That way, most of our news was published in the magazine's online edition just minutes after it happened.

This has made me a happier writer, too, because I can control so much of my environment. The same system that lets me escape to Washington or Atlanta or New York also liberates me at home. When the walls of my office begin to close in, I flip on the answering machine and head for the park to work under the trees. Perhaps my neighbors think that a writer with a suntan actually is unemployed, but working atop a hill under the pines has broken my writer's block more than once.



Finally, my system makes me feel more secure, because important work can be backed up online as well as on paper and on magnetic disk. Before I leave this hotel room, a copy of this column will be uploaded to a storage area on CompuServe. Then if the gremlins at National Airport play fast and loose with my floppy disk and accidentally erase it, I still have a copy snugly filed away in the floating office.

Working in this electronic void also has changed the way I interact with other human units — alas, not always for the better.

This system works so well that sometimes I get quite testy when things go wrong. Equipment failures paralyze me with rage. Then, I watch myself becoming abrupt with an unexpected telephone call. If I don't catch myself, I get unreasonably cranky with my face-to-face answers to people. Most important, I have learned that the same words that are pithy and business-like in an electronic message come across as downright rude when spoken. What is missing is the measure of small talk with which we humans balance our personal communications.

That is what author John Naisbitt was talking about in *Megatrends* when he noted that the developments of high-tech are shadowed by a human need for "high touch." In other words, the more we use our computers, the more we crave personal relationships.

Maybe that is why I have changed my attitude about lunch.

It used to be that meals with associates were excuses to talk business — what is happening and going to happen in the office, what we want to do with this or that project. Things, not people, dominated our lunchtime talk.

However, without really planning to, I have noticed that since I have moved into the electronic office, my business lunches are becoming less and less frequent. Sure, there will always be times when I want to talk business face-to-face. However, it turns out that for much of my business, the electronic channels are a much better medium: Everyone can get a printout of the conversation, and I can even think before I talk(!).

So, now what happens at lunch? What in the world can we talk about between the roast beef and the chocolate pie?

Oh, nothing much — who is going where on vacation, who has quit smoking, whose kid is in college, what needs to be done to turn the country around.

In other words, we talk about all the wonderfully essential trivia that gives us all depth and color, that may signify nothing, but that still makes us feel a little emptier when it is missing.

We are on the first few moments of the history of this new electronic office. There will be times when it will seem strange and forbidding to us, particularly if we feel like add-on devices to our own high-tech systems.

But I think it is going to be worth the adventure if all this electronic equipment not only helps us do our business better but also provides us with the excuse to learn more about each other.

Charles Bowen is a contributing editor of Online Today. *His CompuServe User ID number is 70007,411.*

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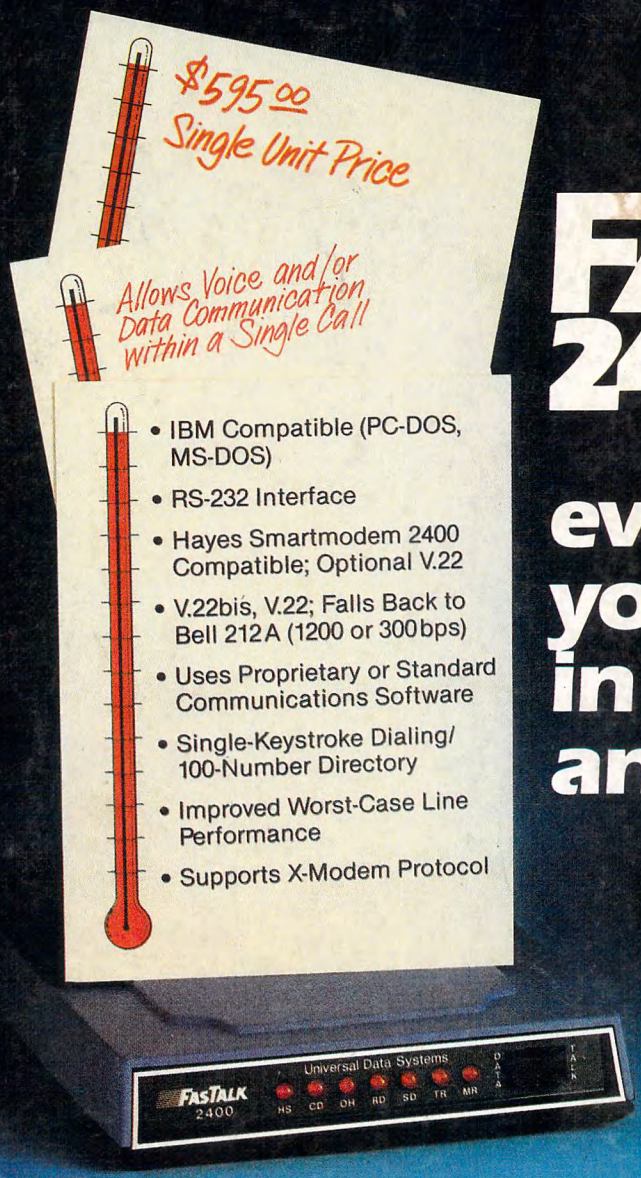
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